```
=> d his

     (FILE 'MEDLINE' ENTERED AT 11:17:04 ON 17 DEC 2001)
                DEL HIS Y
                E TRANSPLANTATION/CT
                E E3+ALL
L1         96409 S E34 OR E35 OR E37 OR E39
L2         10629 S L1/MAJ
L3        949192 S TISSUE# OR ORGAN#
L4          3511 S L2 AND L3
L5        366478 S PREPAR?
L6           129 S L4 AND L5
L7        794426 S TISSUE OR ORGAN
L8          6185 S L7 (4A) PREP?
L9            14 S L6 AND L8
                E TISSUE PRESERVATION/CT
                E E3+ALL
L10        35095 S TISSUE PRESERVATION+NT/CT
L11          492 S L10 AND L2
L12        17249 S L10/MAJ
L13          179 S L11 AND L12
L14         2874 S BLEACH OR HYPOCHLORITE
L15        66978 S IODINE OR IODOPHOR
L16        12568 S HYPERTONIC
L17        68163 S SALINE
L18            0 S L13 AND L14
L19            0 S L13 AND L15
L20            6 S L13 AND ( L16 OR L17)
L21         6441 S L12 (L) MT
L22           60 S L21 AND L13
L23        94643 S CAUSTIC OR PEROXIDE OR HYDROXIDE OR  UREA OR FORMIC ACID OR D
L24            1 S L13 AND L23
L25         4886 S DISINFECTION/CT
L26            1 S L25 AND L13
                E KANAMYCIN/CT
L27         4842 S KANAMYCIN/CT
                E ANTIBIOTIC/CT
                E ANTIBIOTIC/CT
                E ANTIBIOTICS/CT
L28       343968 S ANTIBIOTICS+NT/CT
L29            3 S L28 AND L13
L30            0 S L27 AND L13
L31        14186 S FORMIC ACID OR PERACETIC OR PERMANGANATE OR PHENOL
L32            1 S L13 AND L31
L33            1 S ISOTONIC AND L13
L34            9 S L33 OR L32 OR L29 OR L26 OR L24 OR L20

=> d .med 1-9

L34  ANSWER 1 OF 9     MEDLINE
AN   2001249509     MEDLINE
DN   21224069   PubMed ID: 11327421
TI   High-pressure saline washing of allografts reduces bacterial
     contamination.
AU   Hirn M Y; Salmela P M; Vuento R E
CS   Department of Surgery, Tampere University Hospital, Finland..
     martti.hirn@uta.fi
SO   ACTA ORTHOPAEDICA SCANDINAVICA, (2001 Feb) 72 (1) 83-5.
     Journal code: 1GO; 0370352. ISSN: 0001-6470.
CY   Norway
```

DT (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200105
ED Entered STN: 20010517
Last Updated on STN: 20010517
Entered Medline: 20010510
AB 60 fresh-frozen bone allografts were contaminated on the operating room floor. No bacterial growth was detected in 5 of them after contamination. The remaining 55 grafts had positive bacterial cultures and were processed with three methods: soaking in **saline**, soaking in antibiotic solution or washing by high-pressure **saline**. After high-pressure lavage, the cultures were negative in three fourths of the contaminated allografts. The corresponding figures after soaking grafts in **saline** and antibiotic solution were one tenth and two tenths, respectively. High-pressure **saline** cleansing of allografts can be recommended because it improves safety by reducing the superficial bacterial bioburden.
CT Check Tags: Comparative Study; Human
*Bacteria: GD, growth & development
Cefuroxime
Cephalosporins
Colony Count, Microbial
*Femur Head: MI, microbiology
*Femur Head: TR, transplantation
*Infection Control: MT, methods
Infection Control: ST, standards
*Irrigation: MT, methods
Irrigation: ST, standards
Pressure
*Sodium Chloride
Solutions
***Tissue Preservation: MT, methods**
Tissue Preservation: ST, standards
***Transplantation, Homologous**

L34 ANSWER 2 OF 9 MEDLINE
AN 1999320507 MEDLINE
DN 99320507 PubMed ID: 10392210
TI An easy and safe method to store and disinfect explanted skull bone.
AU Schultke E; Hampl J A; Jatzwauk L; Krex D; Schackert G
CS Department of Neurosurgery, Technical University of Dresden, Germany.
SO ACTA NEUROCHIRURGICA, (1999) 141 (5) 525-8.
Journal code: 19C; 0151000. ISSN: 0001-6268.
CY Austria
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199908
ED Entered STN: 19990827
Last Updated on STN: 19990827
Entered Medline: 19990819
AB In our department extensive decompression craniectomies became the treatment of choice for patients with massive cerebral oedema following either trauma or acute cerebral infarction. The remarkable survival rates of this neurosurgical technique created the problem of adequate vault defect reconstruction. To evaluate the biological safety of using stored autologous skull flaps for this purpose, we compared three different disinfection methods. Skull bone fragments stored at -21 degrees C for

different periods of time were artificially contaminated with clinically relevant strains of Serratia marcescens, Enterococcus faecium and Staphylococcus aureus. As potential methods for disinfection we tested immersion in 3% H2O2, boiling in normal **saline** for 15 and 30 minutes and a special process of steam disinfection at a temperature of 75 degrees C for 20 minutes. We were able to demonstrate that only steam disinfection completely eliminated the bacterial strains tested. Refrigeration plus steam disinfection of autologous skull bone prior to re-implantation seems to offer reliable safety for its use for defect closure. It is available at reasonable cost in many hospitals and does not require a bone bank.

CT Check Tags: Comparative Study; Human
Bone Transplantation: MT, methods
*Bone Transplantation: ST, standards
***Disinfection: MT, methods**
Enterococcus faecium: IP, isolation & purification
Hydrogen Peroxide
Serratia marcescens: IP, isolation & purification
Staphylococcus aureus: IP, isolation & purification
Steam
Surgical Flaps: MI, microbiology
*Surgical Flaps: ST, standards
Surgical Flaps: SD, supply & distribution
***Tissue Preservation: MT, methods**
Transplantation, Autologous: MT, methods
***Transplantation, Autologous: ST, standards**

L34 ANSWER 3 OF 9 MEDLINE
AN 85283952 MEDLINE
DN 85283952 PubMed ID: 3161702
TI Intraportal autotransplantation of cryopreserved porcine islets of Langerhans.
AU Wise M H; Gordon C; Johnson R W
SO CRYOBIOLOGY, (1985 Aug) 22 (4) 359-66.
Journal code: DT3; 0006252. ISSN: 0011-2240.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198510
ED Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19851024
AB Mechanically prepared isolated islets of Langerhans were cryopreserved in liquid nitrogen for a period of 4 days. Intraportal autotransplantation studies were performed on two groups of six pigs rendered diabetic by total pancreatectomy (group 2) or by partial pancreatectomy combined with streptozotocin (group 4) and compared with two control groups (groups 1 and 3, respectively). The pigs were assessed for survival, weight gain, glycosuria, polyuria, systemic blood sugar and insulin, and, in selected pigs, intravenous glucose tolerance tests. Results showed that partial pancreatectomy with streptozotocin was the better tolerated experimental diabetes. Variable control of hyperglycemia was obtained over an experimental period of 3 months. Random blood glucose returned to normal in one of six pigs in the totally pancreatectomized group and three of six pigs in the partial pancreatectomy and streptozotocin group. Despite these normal circulating glucose levels, imperfect glucose homeostasis was achieved as shown by the response to glucose tolerance testing. These results report blood glucose control after cryopreserved islet autotransplants in diabetic pigs but further study is still necessary to

achieve consistency.
CT Check Tags: Animal
Dimethyl Sulfoxide: PD, pharmacology
Freezing
Glucose Tolerance Test
*Islets of Langerhans: TR, transplantation
*Islets of Langerhans Transplantation
***Organ Preservation**
Pancreatectomy
Postoperative Period
Streptozocin: PD, pharmacology
Swine
***Transplantation, Autologous: MT, methods**

L34 ANSWER 4 OF 9 MEDLINE
AN 84036303 MEDLINE
DN 84036303 PubMed ID: 6355496
TI Short-term preservation of human autografts.
AU Cram A E; Domayer M A
NC CA 28848 (NCI)
SO JOURNAL OF TRAUMA, (1983 Oct) 23 (10) 872-3.
Journal code: KAF; 0376373. ISSN: 0022-5282.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 198312
ED Entered STN: 19900319
Last Updated on STN: 19970203
Entered Medline: 19831217
AB Short-term storage of a patient's harvested skin is clinically desirable for numerous reasons. Previous experience in our center using a skin storage solution of **saline** with a high concentration of antibiotics resulted in poor graft viability and an unsatisfactory clinical outcome. This report defines an improved method of storage which allows longer storage time, yielding viable skin and results in subsequent graft acceptance on the patient. Split-thickness autografts from patients were stored in: 1) **saline** + 10(4) units/ml penicillin and 0.005 gm/ml streptomycin, or 2) RPMI-1640 + 25 units/ml penicillin and 25 mcg/ml streptomycin, at 4 degrees C. The pH range of the **saline** solution was 5.90-6.20, compared to 7.20-7.32 for the RPMI-1640 solution. The medium was changed every 3 to 4 days during the storage period. Before graft reapplication the autografts were rinsed with sterile **saline** . Previous clinical results using the **saline**-antibiotic storage solution resulted in poor graft viability and no graft survival was noted on patients after 5 days of skin storage. In contrast 11/16 autografts which had been stored in the RPMI-1640 solution for 5 to 22 days (median, 11 days) were successful takes when regrafted to patients. Graft loss was observed in five cases due to the following reasons: inability to immobilize graft (one); poor vascular bed (two); and bacterial infections (two). These data are in agreement with results reported in a separate paper, demonstrating the effectiveness of RPMI-1640 as a storage medium for maintaining viable human skin grafts which were subsequently transplanted to athymic nude mice.(ABSTRACT TRUNCATED AT 250 WORDS)
CT Check Tags: Animal; Human; Support, U.S. Gov't, P.H.S.
Mice
Mice, Nude
*Skin: TR, transplantation
*Skin Transplantation
Time Factors

***Tissue Preservation**
***Transplantation, Autologous**

L34 ANSWER 5 OF 9 MEDLINE
AN 81209655 MEDLINE
DN 81209655 PubMed ID: 7016285
TI Protection of the myocardial homograft. 1. The cooling bag.
AU Chartrand C; Laroche B; Parent R; Stanley P
SO CANADIAN JOURNAL OF SURGERY, (1981 May) 24 (3) 247-50.
Journal code: CKJ; 0372715. ISSN: 0008-428X.
CY Canada
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198108
ED Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19810810
AB Because severe cardiac insufficiency follows orthotopic heart transplantation, the authors have evaluated protection of the homograft provided by a cooling and isolating bag during the operative period of ischemia and subsequently its effect on cardiac function. In one group or four dogs hearts were transplanted without using hypothermia. In the second group, seven hearts were excised, immediately cooled by immersion in **saline** at 4 degrees C and orthotopically homotransplanted. In the third group, six hearts were immersed in **saline** and then isolated in a cooling bag until transplantation had been completed. Cardiac function in all animals was evaluated at rest, 3, 24 and 48 hours after operation. In group 1, lowering of the temperature was minimal and all animals died immediately after operation. In group 2, the myocardial temperature, which had been lowered to 13 degrees C by immersion, had risen to 25 degrees C after 17 minutes. In group 3, the myocardial temperature was maintained at 13 degrees C up to the time the aortic clamp was removed. Three hours after operation, the cardiac performance of group 3 was much better than that of group 3 was much better than that of group 2 as demonstrated by an increase of cardiac output (39%), stroke volume (44%), mean systolic ejection rate (25%), maximum systolic flow (28%), peak velocity (26%), maximum acceleration (20%), left ventricular power (32%) and left ventricular work (47%). In the following days, cardiac function of groups 2 and 3 improved and the disparity between then decreased. These results demonstrate that the cooling bag, while offering technical advantages, maintains profound hypothermia in the donor heart and substantially improves the performance of the homograft in the immediate postoperative phase.
CT Check Tags: Animal; Support, Non-U.S. Gov't
Dogs
Heart: PH, physiology
*Heart: TR, transplantation
Heart Function Tests
*Heart Transplantation
Hemodynamics
*Hypothermia, Induced
*Myocardium
***Organ Preservation: MT, methods**
***Tissue Preservation: MT, methods**
***Transplantation, Homologous: MT, methods**

L34 ANSWER 6 OF 9 MEDLINE
AN 80070522 MEDLINE
DN 80070522 PubMed ID: 389766

TI [Kidney preservation by mechanical perfusion or hypothermic storage]. Konservierungszeit der Niere bei maschineller Dauerperfusion und hypothermer Lagerung.
AU Grundmann R
SO FORTSCHRITTE DER MEDIZIN, (1979 Oct 11) 97 (38) 1668-74.
Journal code: F62; 2984763R. ISSN: 0015-8178.
CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA German
FS Priority Journals
EM 198002
ED Entered STN: 19900315
Last Updated on STN: 19900315
Entered Medline: 19800215
AB The efficiency of hypothermic mechanical perfusion and hypothermic storage, resp., for kidney preservation was to be examined. For this purpose dog kidneys were subdued to 0 to 60 min of warm ischemia, then preserved for 12--72 hours and thereafter transplanted. It could be concluded: 1. Hypothermic mechanical perfusion makes a successful 72 hour preservation possible with excellent kidney function immediately after transplantation. After 30 minutes of warm ischemia the preservation period should be limited to 24 hours. 2. Hypothermic storage is inferior to mechanical perfusion concerning the immediate function after transplantation: 24 hours storage time and 15 minutes of warm ischemia should not be exceeded. 3. Kidney function decreases exponentially by the time of preservation. This means that the warm ischemic period and the preservation time, resp., should be as short as possible to get an undamaged kidney after transplantation: the shorter the preservation period the better the kidney function after transplantation.
CT Check Tags: Animal; Comparative Study
Dogs
Hypertonic Solutions
Ischemia
*Kidney: TR, transplantation
*Kidney Transplantation
Perfusion
Potassium
Temperature
***Tissue Preservation: MT, methods**
***Transplantation, Homologous**

L34 ANSWER 7 OF 9 MEDLINE
AN 79199960 MEDLINE
DN 79199960 PubMed ID: 450211
TI Autogenous skull cranioplasty: fresh and preserved (frozen), with consideration of the cellular response.
AU Prolo D J; Burres K P; McLaughlin W T; Christensen A H
SO NEUROSURGERY, (1979 Jan) 4 (1) 18-29.
Journal code: NZL; 7802914. ISSN: 0148-396X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197908
ED Entered STN: 19900315
Last Updated on STN: 19900315
Entered Medline: 19790816
AB Every craniotomy requires immediate replacement of a fresh autograft of skull or, in the presence of cerebral swelling, delayed reimplantation of preserved autogenous skull. Resumption of osteogenesis, the index of

viability, determines the effectiveness of these segments of calvaria in protecting the brain and restoring skull conformity. The cellular response in skull replaced either at the end of craniotomy or after frozen preservation was studied by light and fluorescence microscopy, skull roentgenograms, and radionuclide scintigraphy. In 5 patients eventual total remodeling of skull was found at the time of a second craniotomy performed from 1 to 19 years after the first. In 12 patients skull sections removed aseptically at craniotomy were frozen and stored for 1 to 35 months at -20 degrees C in bacitracin. This cytotoxic preservative method fixed the tissue, which appeared unchanged on light microscopy and was sterile on bacteriological and fungal cultures. In 53 patients who underwent autogenous cranioplasty with skull stored frozen for 3 weeks to 19 months, 48 operations were totally successful. Complications included infections in 2 patients, resorption in 2 infants, and incomplete restoration in 1 adult. In 10 patients the sequential dynamics of skull revitalization were found to be: revascularization, resorption, and accretion. The repair of membranous skull is similar to that of endochondral bone of the skeleton. Skull is metabolically intensely active after reimplantation and is the ideal material for cranioplasty.

CT Check Tags: Female; Human; Male; Support, U.S. Gov't, Non-P.H.S.
Adolescence
Adult
Age Factors
Aged
Bacitracin: PD, pharmacology
Bone Resorption
Brain Edema: SU, surgery
Child
Child, Preschool
Craniotomy: MT, methods
Follow-Up Studies
*Freezing
Infant
Middle Age
Osteoblasts
Osteogenesis
Skull: BS, blood supply
Skull: CY, cytology
Skull: RA, radiography
*Skull: TR, transplantation
Time Factors
***Tissue Preservation**
***Transplantation, Autologous**

L34 ANSWER 8 OF 9 MEDLINE
AN 78221921 MEDLINE
DN 78221921 PubMed ID: 353380
TI Renal transplantation in the rabbit: a model for preservation studies.
AU Jacobsen I A
SO LABORATORY ANIMALS, (1978 Apr) 12 (2) 63-70.
Journal code: KYQ; 0112725. ISSN: 0023-6772.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197809
ED Entered STN: 19900314
Last Updated on STN: 19900314
Entered Medline: 19780930
AB Transplantation is necessary for evaluation of kidney preservation

procedures, and a model using a small laboratory animal is desirable. The rabbit was found to be a suitable animal for this purpose. Even long periods of anaesthesia without artificial respiration were safely achieved. Hydration and serum electrolytes could be maintained within normal ranges with intravenous injections of **isotonic saline** and dextrose during and after the operation. The kidneys were implanted by anastomosing the artery and vein end-to-side to the abdominal aorta and the posterior vena cava respectively. The ureter was implanted into the bladder over a nylon stent. In a recent 100 transplantations the incidence of vascular thrombosis was low (4%), but rather more (10%) mainly late ureteral complications were encountered. Transplanted kidneys showed good function with mean peak serum creatinines of 285 mumol/l and normal macroscopic and histological appearance at autopsy.

CT Check Tags: Animal; Female; Male
Anesthesia: MT, methods
Anesthesia: VE, veterinary
*Kidney: TR, transplantation
*Kidney Transplantation
Models, Biological
Nephrectomy: MT, methods
Nephrectomy: VE, veterinary
***Organ Preservation: MT, methods**
*Rabbits: SU, surgery
***Tissue Preservation: MT, methods**
Transplantation, Homologous: MT, methods
***Transplantation, Homologous: VE, veterinary**

L34 ANSWER 9 OF 9 MEDLINE
AN 74083132 MEDLINE
DN 74083132 PubMed ID: 4772915
TI [Preparation of heart valves for grafting after sterilization with **peracetic** acid].
Einpflanzungsvorbereitungen an mit Peressigsaure sterilisierten Herzklappentransplantaten.
AU Mucke H; Wenzel K P
SO ZEITSCHRIFT FUR EXPERIMENTELLE CHIRURGIE, (1973) 6 (4) 252-5.
Journal code: XU0; 0154510. ISSN: 0323-5580.
CY GERMANY, EAST: German Democratic Republic
DT Journal; Article; (JOURNAL ARTICLE)
LA German
FS Priority Journals
EM 197403
ED Entered STN: 19900310
Last Updated on STN: 19900310
Entered Medline: 19740319
CT Check Tags: Animal; Human
*Acetic Acids
*Aortic Valve: TR, transplantation
Buffers
Hydrogen-Ion Concentration
*Sterilization
Swine
***Tissue Preservation**
***Transplantation, Heterologous**

```
=> d his

     (FILE 'MEDLINE' ENTERED AT 11:17:04 ON 17 DEC 2001)
               DEL HIS Y

     FILE 'BIOSIS' ENTERED AT 11:58:55 ON 17 DEC 2001
L1         37401 S  HETEROGRAFT# OR ALLOGRAFT# OR XENOGRAFT# OR AUTOGRAFT#
L2          8717 S (ORGAN# OR TISSUE#) (4W) TRANSPLANT?
L3         45055 S L1 OR L2
L4         38293 S L1 OR HOMOGRAFT#
L5         45943 S L4 OR L2
L6         45274 S PRESERVA?
L7          1017 S L5 AND L6
L8         96604 S ?PRESERV?
L9          2127 S L8 AND L5
L10        34764 S L8/TI,IT
L11        40783 S L10 OR CRYOPRESERV?/TI,IT
L12         1207 S L11 AND L9
L13       154235 S TRANSPLANT?/TI,IT
L14          550 S L12 AND L13
L15          175 S L5 (4A) (PREPAR?)
L16       952715 S TISSUE# OR ORGAN#
L17         8309 S L16 (4A) PREPAR?
L18          329 S L17 AND (TRANSPLANT? OR ?GRAFT?)
L19          470 S L15 OR L18
L20         1015 S L14 OR L19
L21         8288 S HYPERTONIC
L22            3 S L20 AND L21
L23        41545 S IODOPHOR OR IODINE
L24            6 S L23 AND L20
L25       112462 S CAUSTIC OR HYDROXIDE OR DODECYLSULFATE OR UREA OR PHENOL OR F
L26            8 S L20 AND L25
L27         3441 S BLEACH OR HYPOCHLORITE?
L28            0 S L27 AND L20
L29            4 S PEROXIDE# AND L20
L30        85143 S ANTIBIOTIC OR KANAMYCIN
L31           13 S L30 AND L20
L32         2055 S PERACETIC OR PERMANGANATE
L33            0 S L32 AND L20
L34           28 S L22 OR L26 OR L29 OR L31

=> d bib ab it 1-28

L34  ANSWER 1 OF 28  BIOSIS  COPYRIGHT 2001 BIOSIS
AN   2000:546022  BIOSIS
DN   PREV200000546022
TI   Viability of cells in cryopreserved canine cardiovascular
     organs for transplantation.
AU   Park, Jong-Chul; Sung, Hak-Joon; Lee, Dong Hee; Park, Young Hwan; Cho, Bum
     Koo; Suh, Hwal (1)
CS   (1) Department of Medical Engineering, Yonsei University College of
     Medicine, Seoul, 120-752 South Korea
SO   Yonsei Medical Journal, (October, 2000) Vol. 41, No. 5, pp. 556-562.
     print.
     ISSN: 0513-5796.
DT   Article
LA   English
SL   English
AB   To determine applicability of the cryopreservation procedure for
     vessel grafts, the viability of endothelial cells (ECs) among the whole
```

cells in three kinds of organs artery, vein, trachea in mongrel dogs was evaluated on the basis of histological analysis. The Griffonia simplicifolia agglutins - fluorescein isothiocyanate (GSA-FITC) and propidium iodide (PI) double staining methods were combined with flow cytometry (FCM), which was able to simultaneously determine the viability of whole cells and ECs from the same tissue, were performed after harvesting, after **antibiotic** solution treatment, and after **cryopreservation** and thawing. In most cases, the viability of ECs is lower than that of whole cells from veins and arteries. The viability of whole cells in veins was maintained until the **antibiotic** solution treatment and then decreased significantly after **cryopreservation** and thawing, while the ECs began to decrease significantly after the **antibiotic** solution treatment and more markedly decreased after thawing. The viability of ECs and whole cells from arteries was similar to that of the veins' conditions. The viability of whole cells from the trachea decreased with a similar pattern to that of the ECs from vessels. In consideration of maintaining cell viability among the three kinds of organs, the viability of arteries was better than that of the others. The cells in the trachea demonstrated a lower viability than the vessels. The effect of **antibiotic** solution treatment on the reduction of cell viability depends on the treatment time and temperature.

IT Major Concepts
Methods and Techniques; Cardiovascular System (Transport and Circulation)

IT Parts, Structures, & Systems of Organisms
artery: circulatory system, **cryopreserved**; trachea: **cryopreserved**, respiratory system; vein: circulatory system, **cryopreserved**

IT Chemicals & Biochemicals
fluorescein isothiocyanate; propidium iodide

IT Methods & Equipment
antibiotic solution treatment: therapeutic method; double staining method: staining method; flow cytometry: analytical method, cytophotometry: CB, cytophotometry: CT; histological analysis: analytical method; vessel grafts: **transplantation** method

IT Miscellaneous Descriptors
cell viability; temperature; treatment time

ORGN Super Taxa
Canidae: Carnivora, Mammalia, Vertebrata, Chordata, Animalia; Leguminosae: Dicotyledones, Angiospermae, Spermatophyta, Plantae

ORGN Organism Name
Griffonia semplicifolia agglutins (Leguminosae); dog (Canidae): mongrel

ORGN Organism Superterms
Angiosperms; Animals; Carnivores; Chordates; Dicots; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Plants; Spermatophytes; Vascular Plants; Vertebrates

RN 27072-45-3 (FLUORESCEIN ISOTHIOCYANATE)
25535-16-4 (PROPIDIUM IODIDE)

L34 ANSWER 2 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:128365 BIOSIS
DN PREV200000128365
TI Experience of banking aortic valve homografts and clinical application.
AU Liu Jianlin; Li Zhaozhi; Huang Qingheng
SO Xi'an Yike Daxue Xuebao, (Dec., 1999) Vol. 20, No. 4, pp. 559-560. ISSN: 0258-0659.
DT Article
LA Chinese
SL Chinese; English

AB Banking aortic valve homografts were performed in our hospital for safeguarding vecipients. The guidelines of donor selection were formulated and quality control was applied during precurement, preparation and storage of the grafts. Aortic valve homografts were harvested under aseptic, treated in Hank's and RPMI 1640 with **antibiotic**, cryopreserved in Liquid Nitrogen. From September 1987 to December 1997, altogether 200 aortic valves were harvested, 110 of them were cryopreserved. 20 vlaves were implanted in our hospital and other hospital with satisfactory results.

IT Major Concepts
Cardiovascular System (Transport and Circulation)

IT Miscellaneous Descriptors
aortic valve **homograft**: banking, donor selection, **preparation**, procurement, storage

ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
human (Hominidae)

ORGN Organism Superterms
Animals; Chordates; Humans; Mammals; Primates; Vertebrates

L34 ANSWER 3 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:12312 BIOSIS
DN PREV200000012312
TI Antioxidative properties of pyruvate and protection of the ischemic rat heart during cardioplegia.
AU Dobsak, Petr (1); Courderot-Masuyer, Carol; Zeller, Marianne; Vergely, Catherine; Laubriet, Aline; Assem, Mahfoud; Eicher, Jean-Christophe; Teyssier, Jean-Raymond; Wolf, Jean-Eric; Rochette, Luc
CS (1) Facultes de Medecine et de Pharmacie, 7 Bd. Jeanne d'Arc, 21033, Dijon Cedex France
SO Journal of Cardiovascular Pharmacology, (Nov., 1999) Vol. 34, No. 5, pp. 651-659.
ISSN: 0160-2446.
DT Article
LA English
SL English
AB Formation of oxygen free radicals during heart transplantation seems to be related to the alterations occurring during ischemia and reperfusion and could explain the short **preservation** time of donor hearts. The aim of our study was (a) to analyze the protective effects of pyruvate during cold cardioplegia and ischemia/reperfusion sequence, and (b) to investigate in vitro the radical scavenging properties of this compound. After 30 min of perfusion, isolated working rat hearts were arrested by cardioplegic solution, stored 4 h in B21 solutions at 4degreeC, and reperfused with Krebs-Henseleit buffer for 45 min. Pyruvate (2 mM) was added to Krebs-Henseleit, cardioplegic, and storage solutions, and functional parameters were recorded throughout the experiments. In a second part, control hearts and hearts treated with pyruvate were cannulated via the aorta and perfused for 30 min by the Langendorff method, arrested by cardioplegic solution, stored 4 h in B21 solutions at 4degreeC, and reperfused fo r 45 min by the Langendorff method. Malonedialdehyde and alpha-tocopherol levels were determined on heart homogenate. In situ detection of apoptotic cells also was performed on tissue samples (left ventricle) at the end of the ischemia/reperfusion sequence. To demonstrate in vitro the antioxidant effects of pyruvate, we monitored (a) its hydroxyl radical scavenging properties by using electron paramagnetic resonance (EPR) spectroscopy, and (b) the decrease of fluorescence of allophycocyanin, in the presence of a Fenton system (H2O2/Cu2+). Ischemia for 4 h, followed by myocardial reperfusion,

resulted in substantially reduced mechanical function. Hearts subjected to this ischemia and pretreated with pyruvate showed a significant improvement in the function recovery. After the ischemia/reperfusion protocol, no significant decrease of malonedialdehyde levels was shown on hearts treated with pyruvate. However, alpha-tocopherol levels were higher in the pyruvate group compared with the contro l group. At the end of the reperfusion period, levels of apoptotic cells were significantly lower in hearts treated with pyruvate compared with control hearts. EPR studies showed that pyruvate was an efficient hydroxyl scavenger, with a median inhibitory concentration (IC50) of 8 mM. The allophycocyanin assay also showed a dose-dependent effect of pyruvate against hydroxyl radicals. In conclusion, these findings showed that pyruvate could prevent reperfusion injuries in the isolated heart, probably by its antioxidative properties. The application of pyruvate may contribute to the **preservation** of hearts for **organ transplantation**.

IT Major Concepts
Cardiovascular System (Transport and Circulation)

IT Parts, Structures, & Systems of Organisms
aorta: circulatory system; left ventricle: circulatory system

IT Diseases
ischemia: vascular disease

IT Chemicals & Biochemicals
allophycocyanin: fluorescence; alpha-tocopherol; hydroxyl radicals; malondialdehyde; oxygen free radicals; pyruvate: antioxidant, free radical scavenger

IT Alternate Indexing
Ischemia (MeSH)

IT Methods & Equipment
EPR spectroscopy: analytical method; Fenton system: analytical method, copper, hydrogen **peroxide**; cold cardioplegia: experimental method; heart **transplantation**: surgical method; **preservation**: **preservation** method, specimen preparation techniques; reperfusion: experimental method

IT Miscellaneous Descriptors
apoptosis

ORGN Super Taxa
Muridae: Rodentia, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
rat (Muridae): animal model

ORGN Organism Superterms
Animals; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Rodents; Vertebrates

RN 59-02-9 (ALPHA-TOCOPHEROL)
3352-57-6 (HYDROXYL RADICALS)
542-78-9 (MALONDIALDEHYDE)
11062-77-4 (OXYGEN FREE RADICALS)
57-60-3 (PYRUVATE)

L34 ANSWER 4 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:492160 BIOSIS
DN PREV199900492160
TI Renoprotective effects of trimetazidine against ischemia-reperfusion injury and cold storage **preservation**: A preliminary study.
AU Baumert, Herve; Goujon, Jean-Michel; Richer, Jean-Pierre; Lacoste, Louis; Tillement, Jean-Paul; Eugene, Michel; Carretier, Michel; Hauet, Thierry (1)
CS (1) Unite de Transplantation Experimentale, Departement de Genetique Animale, Institut National de la Recherche Agronomique, Le Magneraud, 17000, Surgeres France
SO Transplantation (Baltimore), (July 27, 1999) Vol. 68, No. 2, pp. 300-303.

ISSN: 0041-1337.
DT Article
LA English
SL English
AB Background. Initial ischemia-reperfusion injury is associated with **organ** retrieval, storage, and **transplantation** adversely affects early graft function and influences the development of chronic graft dysfunction. We have recently shown that the protective agent trimetazidine (TMZ) added to **preservation** solutions: Euro-collins (EC) and University of Wisconsin (UW) was efficient to protect kidneys from ischemia-reperfusion injury in an isolated perfused kidney model. We extended these observations to investigate the role of this drug in the development and progression of organ dysfunction in the autotransplant pig kidney model. Methods. Five experimental groups were studied. After 48-hr cold **preservation**, autotransplantation and immediate controlateral nephrectomy was then performed in group EC (EC+placebo (n=8), EC+TMZ (n=8), UW+placebo (n=7), and (UW+TMZ) (n=7) and compared with control group (uninephrectomized, n=4) during 14 days. Blood and urine samples were collected for the measurement of creatinine and blood **urea** nitrogen on postoperative days 1, 3, 5, 7, 11, and 14. Histological analysis was performed after reperfusion and at day 14. Results. Survivals were 100% in group B and D versus 42% in group A and 57% in group C. Urine production occurred earlier after autotransplantation from TMZ **preserved** kidneys than in placebo **preserved** groups. Peak creat and blood **urea** nitrogen was significantly greater in groups B and D than in groups A and C. TMZ was also efficient both to reduce ischemia-reperfusion injury and to decrease cellular infiltration. Conclusion. These results support the beneficial effect of TMZ against ischemia-reperfusion injury and its early effects on grafts in the form of delayed graft function and decreased graft survival. In addition, TMZ reduces inflammatory cellular infiltration in the renal parenchyma.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Pharmacology
IT Parts, Structures, & Systems of Organisms
kidney: excretory system
IT Diseases
ischemia: vascular disease; reperfusion injury: vascular disease
IT Chemicals & Biochemicals
trimetazidine: cardiovascular - drug, renoprotective effects;
Euro-collins: **preservative**
IT Alternate Indexing
Ischemia (MeSH); Reperfusion Injury (MeSH)
IT Methods & Equipment
autotransplantation: experimental **transplantation** method;
cold storage: **preservation** method; kidney
transplantation: surgical method, therapeutic method
RN 5011-34-7 (TRIMETAZIDINE)

L34 ANSWER 5 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:360560 BIOSIS
DN PREV199900360560
TI Cutaneous cryptococcosis clinically mimicking necrotizing fasciitis.
AU Kim, Dong Seok (1); Jang, Hyo Chan; Yoon, Young Mook; Kim, Sang Won; Kim, Shin Kun
CS (1) Department of Dermatology, Catholic University of Taegu-Hyosung, Taegu South Korea
SO Annals of Dermatology, (April, 1999) Vol. 11, No. 2, pp. 112-116.
ISSN: 1013-9087.
DT Article

LA English
SL English
AB Secondary cutaneous cryptococcosis may occur earlier than other manifestations of disseminated cryptococcosis. A 68-year-old woman presented with multiple ulcerative lesions on the right calf of 2 weeks duration. She had been treated with antibiotics, but the lesions spread rapidly. The initial clinical impression was necrotizing fasciitis, but routine KOH mounting from the ulcerative lesions showed numerous budding yeast cells with peripheral clear zones and further investigations including a skin biopsy, **tissue** cultures and India ink **preparations** allowed a rapid and definitive diagnosis of cutaneous cryptococcosis. Studies for other evidence of infection elsewhere revealed an asymptomatic pulmonary lesion. We report a case of secondary cutaneous cryptococcosis clinically mimicking necrotizing fasciitis that occured before other manifestations of disseminated cryptococcosis.
IT Major Concepts
Dermatology (Human Medicine, Medical Sciences); Infection
IT Diseases
cutaneous cryptococcosis: clinical pathology, treatment, integumentary system disease, differential diagnosis, fungal disease, disseminated; necrotizing fasciitis: bacterial disease, differential diagnosis
IT Chemicals & Biochemicals
fluconazole: antifungal - drug; itraconazole: antifungal - drug
IT Alternate Indexing
Fasciitis, Necrotizing (MeSH)
IT Methods & Equipment
potassium **hydroxide** mounting: diagnostic method; skin biopsy: diagnostic method; skin **grafting**: surgical method, therapeutic method; tissue culture: diagnostic method; India ink assay: diagnostic method
IT Miscellaneous Descriptors
Case Study
ORGN Super Taxa
Fungi Imperfecti or Deuteromycetes: Fungi, Plantae; Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
human (Hominidae): aged, female, host, patient; Cryptococcus neoformans (Fungi Imperfecti or Deuteromycetes): pathogen
ORGN Organism Superterms
Animals; Chordates; Fungi; Humans; Mammals; Microorganisms; Nonvascular Plants; Plants; Primates; Vertebrates
RN 1310-58-3 (POTASSIUM **HYDROXIDE**)
84625-61-6 (ITRACONAZOLE)
86386-73-4 (FLUCONAZOLE)

L34 ANSWER 6 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1998:43722 BIOSIS
DN PREV199800043722
TI **Cryopreservation** of cardiovascular tissues.
AU Shon, Yun Hee (1)
CS (1) Cent. Biotechnol., Old Dominion Univ., Norfolk, VA 23529 USA
SO Chonnam Journal of Medical Sciences, (June, 1997) Vol. 10, No. 1, pp. 1-13.
ISSN: 1013-3968.
DT General Review
LA English
AB The history of using heart valve substitutes in the repair of diseased and malfunctioning heart valves dates back more than 30 years. The purpose of cardiac valve transplantation research has been the search for perfect valve substitutes, namely, mechanical, porcine and bovine pericardial

bioprosthetic, or **allograft** valves. No prosthetic valve yet developed, mechanical and tissue valves, approached the normal human valve in either hemodynamic performance or freedom from complications. In a search for the perfect valve replacement, researchers turned to the **allograft** valve. The advantages of the aortic valve **allograft** have included its remarkable hemodynamic function, freedom from thromboembolism, and enhanced resistance to endocarditis. Although the **allograft** is superior to the mechanical and bioprosthetic valves in almost every aspect, there are several obstacles to overcome with its use. The problems are limited availability, short "shelf life", and valvular incompetence. The development of **cryopreservation** is now permitting long term storage of the **allograft** heart valve and improving on availability. It has also allowed procurement of quality tissue at sites and times remote from implantation both in distance and in time. Human heart valve **cryopreservation** process includes procurement and transport, **antibiotic** sterilization, **cryopreservation**, storage, thawing with removal of cryoprotectants, and transplantation of the **allograft** valves.

IT Major Concepts
Cardiovascular Medicine (Human Medicine, Medical Sciences)

IT Parts, Structures, & Systems of Organisms
cardiovascular tissue: circulatory system

IT Diseases
endocarditis: heart disease; thromboembolism: vascular disease

IT Methods & Equipment
cardiac valve **transplantation**: surgical method, therapeutic method; **cryopreservation**: **preservation** method

ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
human (Hominidae)

ORGN Organism Superterms
Animals; Chordates; Humans; Mammals; Primates; Vertebrates

L34 ANSWER 7 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1997:315843 BIOSIS
DN PREV199799606331
TI Inhibition of lipid peroxidation with the lazaroid U74500A attenuates ischemia-reperfusion injury in a canine orthotopic heart **transplantation** model.
AU Tanoue, Yoshihisa; Morita, Shigeki (1); Ochiai, Yoshie; Hisahara, Manabu; Masuda, Munetaka; Kawachi, Yoshito; Tominaga, Ryuji; Yasui, Hisataka
CS (1) Dep. Cardiovascular Surg., Fac. Med., Kyushu Univ., 3-1-1 Maidashi, Higashi-ku, Fukuoka 812-82 Japan
SO Journal of Thoracic and Cardiovascular Surgery, (1996) Vol. 112, No. 4, pp. 1017-1026.
ISSN: 0022-5223.
DT Article
LA English
AB Background: The lazaroid U74500A is a 21-aminosteroid that inhibits lipid peroxidation and attenuates ischemia-reperfusion injury. We examined the effect of U74500A on heart **preservation** with the use of a clinically relevant canine orthotopic heart transplantation model. Methods and results: Six donor dogs (group L) were pretreated intravenously with U74500A (10 mg/kg), and the dogs without pretreatment served as a control (group C, n = 6). The donor heart was **preserved** in cold University of Wisconsin solution for 24 hours. The heart was then transplanted orthotopically. Myocardial biopsy was performed to measure the adenosine triphosphate level at the end of ischemia. Before

reperfusion, recipients in group L received another dose of U74500A (10 mg/kg) intravenously. After 3 hours of reperfusion, left ventricular function was evaluated by left ventricular pressure-volume relations with the use of a Millar catheter and conductance catheter, thereby deriving the slope of the end-systolic pressure-volume relation, the slope of the stroke work- end-diastolic volume relation, and the slope of the maximum dP/dt-end-diastolic volume relation. At the same time, serum creatine kinase MB isoenzyme and lipid **peroxide** levels were measured. The slopes of the end-systolic pressure-volume relation, the stroke work-end-diastolic volume relation, and the maximum dP/dt-end-diastolic volume relation for group L were significantly higher than those for group C. The adenosine triphosphate levels for group L were significantly higher than those for group C. Serum creatine kinase MB isoenzyme and lipid **peroxide** levels for group L were significantly lower than those for group C. Conclusions: Inhibition of lipid peroxidation by the administration of U74500A was effective for 24-hour canine cardiac **preservation**. These results indicate that U74500A is a promising agent for heart **allograft preservation**.

IT Major Concepts
Cardiovascular System (Transport and Circulation); Pathology; Pharmacology; Physiology; Surgery (Medical Sciences)

IT Chemicals & Biochemicals
U74500A

IT Miscellaneous Descriptors
ANIMAL MODEL; CARDIOVASCULAR SYSTEM; HEART **ALLOGRAFT PRESERVATION**; HEART DISEASE; INJURY; ISCHEMIA-REPROFUSION INJURY; LAZAROID U74500A; LIPID PEROXIDATION INHIBITION; ORTHOTOPIC HEART **TRANSPLANTATION**; PHARMACOLOGY; SURGICAL METHOD; THERAPEUTIC METHOD; UNIVERSITY OF WISCONSIN; VASCULAR DISEASE

ORGN Super Taxa
Canidae: Carnivora, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
dog (Canidae)

ORGN Organism Superterms
animals; carnivores; chordates; mammals; nonhuman mammals; nonhuman vertebrates; vertebrates

RN 110101-65-0 (U74500A)

L34 ANSWER 8 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1996:160613 BIOSIS
DN PREV199698732748
TI Successful twenty-four-hour canine lung **preservation** with lazaroid U74500A.
AU Tanoue, Yoshihisa; Morita, Shigeki (1); Ochiai, Yoshie; Zhang, Qi-Wei; Hisahara, Manabu; Miyamoto, Kazuyuki; Nishida, Takahiro; Kawachi, Yoshito; Tominaga, Ryuji; Yasui, Hisataki
CS (1) Dep. Cardiovasc. Surg., Fac. Med., Kyushu University, 3-1-1 Maidashi, Higashi-ku Fukuoka 812-82 Japan
SO Journal of Heart and Lung Transplantation, (1996) Vol. 15, No. 1 PART 1, pp. 43-50.
ISSN: 1053-2498.
DT Article
LA English
AB Background: Lipid peroxidation is known to contribute to ischemia-reperfusion injury. U74500A is a 21-aminosteroid (lazaroid) that prevents lipid peroxidation without corticoid side effects. We examined the effect of U74500A on lung **preservation** using a canine orthotopic single left lung transplantation model. Methods: Twelve adult mongrel dogs underwent left lung allotransplantation. The lungs of the donor dogs were flushed with University of Wisconsin solution (50 ml/kg).

Six donor dogs were pretreated with U74500A (5 mg/kg intravenously) before **preservation** (group L, n = 6), whereas those dogs without pretreatment served as controls (group C, n = 6). **Allografts** were stored in University of Wisconsin solution for 24 hours at 1 degree C. Left single lung transplantations were performed by means of standard technique. Before reperfusion, recipients in group L received another dose of U74500A. Arterial blood gas analysis and hemodynamic measurements were made by occluding the right pulmonary artery to evaluate the transplanted left lung function at a inspired oxygen fraction of 1.0 Serum lipid **peroxide** level was measured after 2 hours of reperfusion. Results: Arterial oxygen tension, arterial carbon dioxide tension, and left pulmonary vascular resistance at 6 hours after reperfusion were significantly better in group L than in group C (arterial oxygen tension: 510 +- 66 and 219 +- 149 mm Hg; arterial carbon dioxide tension: 47 +- 16 and 68 +- 14 mm Hg; left pulmonary vascular resistance: 2412 +- 826 and 3904 +- 1251 dyn cntdot sec/cm-5, group L and group C, respectively). Serum lipid **peroxide** level was significantly lower in group L (0.25 +- 0.24 nmol/ml) than in group C (0.92 +- 0.053). Conclusions: The administration of U74500A prevented lipid peroxidation and **preserved** pulmonary **allograft** function after 24 hours of ischemia.

IT Major Concepts
Cardiovascular System (Transport and Circulation); Metabolism; Pathology; Pharmacology; Physiology; Respiratory System (Respiration)

IT Chemicals & Biochemicals
U74500A

IT Miscellaneous Descriptors
ISCHEMIA-REPERFUSION INJURY; LAZAROID U74500A; LIPID PEROXIDATION; LUNG **TRANSPLANTATION**; METABOLIC-DRUG; PHARMACOKINETICS; TREATMENT

ORGN Super Taxa
Canidae: Carnivora, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
Canidae (Canidae)

ORGN Organism Superterms
animals; carnivores; chordates; mammals; nonhuman vertebrates; nonhuman mammals; vertebrates

RN 110101-65-0 (U74500A)

L34 ANSWER 9 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1996:119164 BIOSIS
DN PREV199698691299
TI Effects of depolarizing or non-depolarizing **preservation** solution on human endothelial cells during cold hypoxia.
AU Hidalgo, M. A. (1); Mann, D. J.; Fuller, B. J.; Green, C. J.
CS (1) Dep. Surg. Res., Northwick Park Inst. Med. Res., Watford Rd., Harrow, Middlesex HA1 3UJ UK
SO Clinical Science (London), (1996) Vol. 90, No. 2, pp. 135-141. ISSN: 0143-5221.
DT Article
LA English
AB I. Hypothermic storage of whole organs flushed with a **preservation** solution is common practice in clinical transplantation. This procedure leaves vascular endothelial cells in direct contact with the **preservation** solution during the length of the cold ischaemic period. 2. Aiming to study the effects of organ **preservation** on vascular endothelium, we subjected cultures of human umbilical vein endothelial cells to hypoxic and hypothermic storage conditions in vitro for 3 or 16h. Four **preservation** solutions with different levels of sodium and potassium were tested. Morphometric analysis and 51Cr leakage index were used to assess monolayer continuity, cell viability and

membrane integrity. 3. Hypothermic storage resulted in severe changes in endothelial cell morphology with formation of intercellular gaps that destroyed monolayer continuity after only 3h. Cellular blebbing was a common feature in seriously damaged cells. 4. Morphometric analysis and 51Cr leakage results correlated well. No significant differences between the solutions tested were found after 3h of hypothermic hypoxic storage. After 16h, viability and monolayer continuity were significantly better **preserved** (MannWhitney, P lt 0.01) in cells stored in lactobionate-based solutions than in **hypertonic** citrate solutions. No significant differences were found between endothelial cells stored in extracellular versus intracellular types of solutions for the lactobionate-based solutions. 5. The results of the present experiment showed that after a period of hypothermic hypoxic storage, vascular endothelial cells appeared morphologically deformed and poorly attached in vitro. Lactobionate-based **preservation** solutions were more effective in **preserving** viability and continuity. Protection of vascular endothelium under cold hypoxic conditions could be a critical factor in successfully **preserving organs** for **transplantation**.

IT Major Concepts
Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport and Circulation); Cardiovascular Medicine (Human Medicine, Medical Sciences); Cardiovascular System (Transport and Circulation); Cell Biology; Development; Hematology (Human Medicine, Medical Sciences); Membranes (Cell Biology); Metabolism; Methods and Techniques; Nervous System (Neural Coordination); Neurology (Human Medicine, Medical Sciences); Pathology; Physiology; Surgery (Medical Sciences)

IT Miscellaneous Descriptors
CELL CULTURE; CLINICAL **TRANSPLANTATION**; COLD ISCHEMIA; HYPOTHERMIC WHOLE ORGAN STORAGE; IN-VITRO; MORPHOLOGY; ORGAN **PRESERVATION**; UMBILICAL VEIN ENDOTHELIAL CELL; VASCULAR ENDOTHELIUM

ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
Hominidae (Hominidae)

ORGN Organism Superterms
animals; chordates; humans; mammals; primates; vertebrates

L34 ANSWER 10 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1995:450159 BIOSIS
DN PREV199598464459
TI Viability studies of human valves **prepared** for use as **allografts**.
AU Armiger, Lois C.
CS Dep. Pathol., Sch. Med., Univ. Auckland, Private Bag 92019, Auckland 1 New Zealand
SO Annals of Thoracic Surgery, (1995) Vol. 60, No. 2 SUPPL., pp. 118-121. ISSN: 0003-4975.
DT Article
LA English
AB The preimplantation viability status of pulmonary and aortic valves **prepared** for use as **allografts** by the methods in current use at Green Lane Hospital, Auckland was determined by autoradiography and culture. The valves were obtained from cadaver donors, disinfected in **antibiotic** solution and stored by cryopreservation. A group of 45 banked valves considered unsuitable for clinical use was assayed initially and very few were found to have viable fibroblasts in their leaflets. A series of 29 valves collected at postmortem examination then was assayed sequentially after each phase of the preparation procedure. Valves

obtained within 24 hours of donor death usually retained considerable viability. However, in all but a minority of cases this declined markedly after **antibiotic** treatment and further still after cryopreservation, so that most valves were nonviable when thawed.

IT Major Concepts
Cardiovascular System (Transport and Circulation); Infection; Pharmacology; Physiology

IT Miscellaneous Descriptors
ANTIBIOTIC DISINFECTION; AORTIC VALVE; CRYOPRESERVATION; PULMONARY VALVE

ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
microorganisms (Microorganisms - Unspecified); Hominidae (Hominidae)

ORGN Organism Superterms
animals; chordates; humans; mammals; microorganisms; primates; vertebrates

L34 ANSWER 11 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1995:397731 BIOSIS
DN PREV199598412031
TI Immunotherapy and immunoprophylaxis in bone marrow **transplantation**
.
AU Barnes, R. A.
CS Dep. Med. Microbiol.l, Univ. Wales Coll. Med., Cardiff UK
SO Journal of Hospital Infection, (1995) Vol. 30, No. SUPPL., pp. 223-231. ISSN: 0195-6701.
DT Article
LA English
AB Immunotherapy can be defined as treatment directed at augmenting host immune defence mechanisms. Non-antimicrobial therapies and immunoprophylaxis in bone marrow **transplantation** (BMT) can be subdivided into three broad categories: passive immunotherapy with intravenous immunoglobulin (IVIG); cytokine therapy; and anti-endotoxin-directed treatments. Most studies using IVIG in BMT are prophylactic and suffer from variability in study design, type of IVIG and dosing regimens. Various effects on viral and bacterial infections and **graft**-versus-host disease (GVHD) have been reported but few if any have shown benefit in terms of improved patient survival. Moreover the immunomodulatory effect of immunoglobulin G preparations is frequently overlooked. With the exception of cytomegalovirus (CMV) pneumonitis, there is little evidence of benefit in the treatment of established infections and the relative benefits of hyperimmune preparations are poorly established. The development of haemopoietic growth factors has led to the widespread use of cytokines in BMT. The benefits of these agents both in the prevention of fever and infection and as adjuvants to standard antimicrobial therapy in established infection (e.g. invasive mycoses) are rapidly becoming apparent. Both human recombinant granulocyte-macrophage colony-stimulating factor (rhGM-CSF) and granulocyte colony-stimulating factor (rhG-CSF) have been shown to accelerate granulocyte recovery following BMT and reduce fever days, **antibiotic** usage and hospitalization. RhGM-CSF appears superior in these respects. The roles of interleukin 1 (IL1), IL3, IL6 and interferons are also under evaluation. As with the much publicized studies using anti-endotoxin antibodies as therapy in sepsis, there is little evidence of benefit in the few studies performed in BMT patients. Other strategies using prophylactic IVIG enriched for anti-endotoxin antibodies appear more promising. The concept of neutralizing the production of cytokines with monoclonal antibodies, receptor antagonists or other biological modifiers, is mainly directed at reducing **tissue** damage during the **preparative** regimen

with the aim of reducing subsequent GVHD. Any effect this may have on infectious complications such as CMV disease has yet to be investigated. Cloned T cells cytotoxic against CMV have also been developed and studies using these preparations are underway.

IT Major Concepts
Blood and Lymphatics (Transport and Circulation); Clinical Immunology (Human Medicine, Medical Sciences); Endocrine System (Chemical Coordination and Homeostasis); Immune System (Chemical Coordination and Homeostasis); Infection; Methods and Techniques; Pathology; Pharmacology; Physiology; Pulmonary Medicine (Human Medicine, Medical Sciences)

IT Miscellaneous Descriptors
ANTI-ENDOTOXIN; ANTIBACTERIAL-DRUG; BACTERIAL INFECTION; CYTOKINE THERAPY; **GRAFT**-VS.-HOST DISEASE; GRANULOCYTE-COLONY STIMULATING FACTOR; GRANULOCYTE-MACROPHAGE COLONY STIMULATING FACTOR; HEMATOLOGIC-DRUG; HORMONE-DRUG; IMMUNOLOGIC-DRUG; INTRAVENOUS IMMUNOGLOBULIN; PASSIVE IMMUNOTHERAPY; PNEUMONITIS; VIRAL INFECTION

ORGN Super Taxa
Animal Viruses - General: Viruses; Bacteria - General Unspecified: Eubacteria, Bacteria; Herpesviridae: Viruses; Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
animal viruses (Animal Viruses - General); bacteria (Bacteria - General Unspecified); cytomegalovirus (Herpesviridae); human (Hominidae)

ORGN Organism Superterms
animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates; viruses

L34 ANSWER 12 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1993:362769 BIOSIS
DN PREV199396048444
TI Inhibition of adenosine deaminase and nucleoside transport: Utility in a model of **homograft** cardiac valve preimplantation processing.
AU Abd-Elfattah, Anwar S. (1); Messier., Robert H., Jr.; Domkowski, Patrick W.; Jones, Janice L.; Aly, Hamdy M.; Crescenzo, Donald G.; Wallace, Robert B.; Hopkins, Richard A. (1)
CS (1) Georgetown Univ., Dep. Surgery, 3800 Reservoir Road N.W., Washington, DC 20007 USA
SO Journal of Thoracic and Cardiovascular Surgery, (1993) Vol. 105, No. 6, pp. 1095-1105.
ISSN: 0022-5223.
DT Article
LA English
AB Human cardiac valves are increasingly used in the reconstruction of ventricular outflow tracts and offer performance advantages over porcine and mechanical prostheses; the durability of these replacements has been associated with leaflet interstitial cell viability and a presumed sustained function after implantation. Preimplantation **tissue preparation** entails sequential steps that are potentially cytotoxic and may therefore affect functional cell survival at thaw. We defined the metabolic consequences of each interval using semilunar cusps from 118 porcine valves to model a **homograft preparation** with 40 minutes of fixed cadaveric (harvest) ischemia. Fifty-eight valves served as controls and were first processed according to standard cryopreservation protocol; nucleosides were extracted at the end of each step to differentiate independent contributions to high-energy phosphate depletion. Sixty simultaneously harvested leaflets were administered the nucleoside transport inhibitor p-nitrobenzy-thioinosine (NBMPR) and the adenosine deaminase inhibitor erythro-9-(2-hydroxy-3-nonyl)adenine (EHNA) at procurement, to attempt adenosine salvage and restitution of

processing-incurred adenine nucleotide losses. High-performance liquid chromatography was used to compare adenosine triphosphate, diphosphate, and monophosphate and diffusible nucleopurines of the control and EHNA/NBMPR-treated groups. Control results indicate that disruption of the adenosine triphosphate-diphosphate cycle occurs independently with **antibiotic** disinfection and cryopreservation. However, throughout all preparation steps, adenine nucleotides were maintained at harvest (baseline) concentrations in the EHNA/NBMPR valves. This suggests that salvage therapy may protect a significant number of cells from net highenergy phosphate catabolism. If, with further study, the durability of **transplanted** valves is concluded to benefit from retained leaflet interstitial cell viability, such enhancement of metabolic tolerance to the obligatory processing may facilitate functional recovery.

IT Major Concepts
Cardiovascular System (Transport and Circulation); Enzymology (Biochemistry and Molecular Biophysics); Metabolism; Pathology; Physiology; Surgery (Medical Sciences)

IT Chemicals & Biochemicals
ADENOSINE DEAMINASE; ERYTHRO-9-(2-HYDROXY-3-NONYL)ADENINE

IT Miscellaneous Descriptors
ATRIAL CONTRACTION; SURGICAL METHOD; THERAPEUTIC EFFICACY; THERAPEUTIC METHOD

ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia; Suidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
human (Hominidae); Suidae (Suidae)

ORGN Organism Superterms
animals; artiodactyls; chordates; humans; mammals; nonhuman mammals; nonhuman vertebrates; primates; vertebrates

RN 9026-93-1 (ADENOSINE DEAMINASE)
51350-19-7 (ERYTHRO-9-(2-HYDROXY-3-NONYL)ADENINE)

L34 ANSWER 13 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1993:272338 BIOSIS

DN PREV199396002563

TI **Cryopreserved** microencapsulated hepatocytes: **Transplantation** studies in Gunn rats.

AU Dixit, Vivek (1); Darvasi, Ruth; Arthur, Marika; Lewin, Klaus; Gitnick, Gary

CS (1) UCLA Sch. Med., Div. Gastroenterol., 675 Circle Drive South, MRL Room 1240, Los Angeles, CA 90024-7019 USA

SO Transplantation (Baltimore), (1993) Vol. 55, No. 3, pp. 616-622. ISSN: 0041-1337.

DT Article

LA English

AB Hepatocyte transplantation has been shown to provide significant metabolic support in several animal models of liver diseases. However, for it to be a viable alternative for supplementation of liver function in disease, large quantities of isolated hepatocytes would be necessary. At the present time there are no inexpensive routine methods for **cryopreservation** of hepatocytes. Existing procedures are cumbersome and require expensive programmable freezers. Hepatocyte cultures are sensitive and easily damaged in handling. By utilizing techniques of microencapsulation and **cryopreservation** we have attempted to overcome these problems. We have developed a simple, convenient, and inexpensive technique for the long-term storage of hepatocytes. Biological activity of the nonfrozen isolated encapsulated hepatocytes (IEH) and **cryopreserved** IEH (cIEH) was assessed both in **tissue** culture and by **transplantation** in Gunn rats.

Significant **urea** and protein syntheses were detectable during the 10-day culture period even in the 30-day cIEH. Additionally, transplanted IEH and cIEH significantly reduced hyperbilirubinemia in Gunn rats for up to 30 days posttransplantation. Control (empty) microcapsules did not lower serum bilirubin levels. Thus we conclude: (1) **cryopreservation** of IEH is a convenient and cost-effective method for **preserving** and storing hepatocytes; (2) **cryopreserved** IEH function as well as nonfrozen IEH both in vitro and in vivo; (3) microencapsulation may protect hepatocytes from the adverse effects of **cryopreservation**.

IT Major Concepts
Cell Biology; Digestive System (Ingestion and Assimilation); Metabolism; Methods and Techniques; Physiology

IT Chemicals & Biochemicals
UREA

IT Miscellaneous Descriptors
CELL FUNCTION; HEPATOCYTE CULTURE; PROTEIN SYNTHESIS; **UREA** SYNTHESIS

ORGN Super Taxa
Muridae: Rodentia, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
Muridae (Muridae)

ORGN Organism Superterms
animals; chordates; mammals; nonhuman vertebrates; nonhuman mammals; rodents; vertebrates

RN 57-13-6 (**UREA**)

L34 ANSWER 14 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1993:204102 BIOSIS

DN PREV199395105327

TI Preimplantation alteration of adenine nucleotides in cryopreserved heart valves.

AU Domkowski, Patrick W.; Messier., Robert H., Jr.; Crescenzo, Donald G.; Aly, Hamdy S.; Abd-Elfattah, Anwar S.; Hilbert, Stephen L.; Wallace, Robert B.; Hopkins, Richard A. (1)

CS (1) Dep. Surgery, 4PHC, Georgetown University, 3800 Reservoir Rd., NW, Washington, DC 20007

SO Annals of Thoracic Surgery, (1993) Vol. 55, No. 2, pp. 413-419. ISSN: 0003-4975.

DT Article

LA English

AB To assess the initial metabolic phase of cellular injury from cardiac valve processing, high-energy phosphate concentrations were analyzed in valve leaflets subsequent to critical processing steps. Using a porcine model, valves were processed in a manner identical to human homografts, with 58 randomly assigned to five groups representing distinct preparation phases. Group I controls) sustanied 40 minutes of warm ischemia concluded by liquid nitrogen immersion. Remaining groups similarly endured 40 minutes of ischemia, but were subsequently prepared according to stepwise design: II, warm ischemia + 24 hours of 4 degree C ischemia; III, warm ischemia + 24 hours of 4 degree C **antibiotic** disinfection; IV, warm ischemia + 24 hours at 4 degree C (without antibiotics) + cryopreservation (-1 degree C/min cryoprotected freezing); and V, warm ischemia + disinfection + cryopreservation. At each regimen's conclusion leaflet extracts were assayed by high-performance liquid chromatography for high-energy adenine nucleotides (adenosine triphosphate, adenosine diphosphate, adenosine monophosphate) and catabolites. A 47% and 86% decrease in cellular adenosine triphosphate level was observed in group III and group V leaflets, respectively. The level of total adenine nucleotides was maintained up to cryopreservation; thereafter a 74%

decrease was noted. Catabolite analysis confirmed incomplete degradation of adenine nucleotides indicating cellular metabolic resilience throughout standard **homograft preparation** in valves previously exposed to 40 minutes of warm ischemia.

IT Major Concepts
Cardiovascular System (Transport and Circulation); Cell Biology; Metabolism; Physiology

IT Chemicals & Biochemicals
ADENINE; ATP; ADP; AMP

IT Miscellaneous Descriptors
ADP; AMP; ANIMAL MODEL; ATP; CELLULAR INJURY; DISINFECTION; HOMOGRAFT; ISCHEMIA; STORAGE METHOD

ORGN Super Taxa
Suidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
pig (Suidae)

ORGN Organism Superterms
animals; artiodactyls; chordates; mammals; nonhuman mammals; nonhuman vertebrates; vertebrates

RN 73-24-5 (ADENINE)
56-65-5Q (ATP)
87805-51-4Q (ATP)
94587-45-8Q (ATP)
111839-44-2Q (ATP)
58-64-0Q (ADP)
7722-76-1Q (ADP)
61-19-8Q (AMP)
124-68-5Q (AMP)
9049-84-7Q (AMP)
76168-80-4Q (AMP)

L34 ANSWER 15 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1993:203026 BIOSIS

DN PREV199395104251

TI Lactobionic and gluconic acid complexes of iron(II) and iron(III); Control of oxidation pathways by an **organ transplantation preservant**.

AU Shepherd, Rex E. (1); Isaacson, Yisrael; Chensny, Lara; Zhang, Songsheng; Kortes, Richard; John, Kevin

CS (1) Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA 15260

SO Journal of Inorganic Biochemistry, (1993) Vol. 49, No. 1, pp. 23-48. ISSN: 0162-0134.

DT Article

LA English

AB Lactobionic acid, (4-beta-(galactosido)-D-gluconic acid) = LBA, is the major component of the Wisconsin **organ transplantation preservant** fluid and may suppress oxygen radical-induced tissue damage upon reperfusion by the control of Fe-II autoxidation. Fe-II and FE-III complexes of LBA and the related gluconic acid (GLC) have been studied herein by titrimetric, infrared, and electrochemical methods (CV; DPP). Fe-II (GLC) forms quickly at pH 7, but Fe-II(LBA) reacts in two steps, the second requiring 4 hr. The initial complex lacks coordination of the LBA carboxylate (C-1) and is bound by the "2,3,5" hydroxyl groups. The slow rearrangement forms a "1,2,3,6" chelate which Fe-II (LBA) shares in common with the donor set of the Fe-III (LBA) complex. Titration data shows the removal of three protons from LBA through pH 5 and an additional proton from pH 6 to 9 which is indicative of the (Fe-II(LBA)(OH)(H-2O))- formulation with LBA donating at the "1,2,3,6" positions. The more stable, second form of Fe-II(LBA) has been investigated in its oxidation mechanisms with H-2O-2 and O-2 using selected trapping agents for HO

cntdot and ferryl intermediates. Eight-six percent of the oxidation events of Fe-II(LBA)/H-2O-2 occurs in steps involving formation and reduction of freely diffusible HO cntdot . These pathways are altered by the known HO cntdot traps t-butanol, dmso, ethanol, and methanol in the manner predictable for beta-oxidizing radicals (from t-butanol or dmso) and alpha-reducing radicals (from ethanol and methanol). Fourteen percent of the Fe-II(LBA)/H-2O-2 reaction occurs via Fe-IV O intermediates not trapped by t-butanol or dmso, but intercepted by primary and secondary alcohols. The HO cntdot generating pathways are responsible for a competitive LBA ligand oxidation at the C-2 position via HO cntdot , formed from Fe-II(LBA) and H-2O-2 within the original reaction cage. Competitive ligand oxidation at C-2 is absent for the Fe-II(LBA)/O-2 autoxidation, indicative of a different redox mechanism. The Fe-II(LBA)/O-2 reaction rate is first-order in each component and is insensitive to the presence of t-butanol as an HO cntdot trap. These observations support a ferryl intermediate in the autoxidation pathway and the absence of HO cntdot or free H-2O-2 during autoxidation. Although chelation of Fe-II by hard ligand donors such as edta-4-, Cl-, or HPO-4-2- accelerate the rate of autoxidation of Fe-II, chelation of carboxylate, alkoxy, and hydroxyl donors of LBA does not accelerate autoxidation. The implication of these findings, and the absence of an inner-sphere coordination role of the 4-beta-(galactosido) functionality toward the action of LBA in organ **preservant** fluids, are discussed.

IT Major Concepts
Biochemistry and Molecular Biophysics; Methods and Techniques; Physiology

IT Chemicals & Biochemicals
GLUCONIC ACID; IRON-(II); IRON-(III); HYDROGEN **PEROXIDE**; OXYGEN

IT Miscellaneous Descriptors
ANALYTICAL METHOD; BIOLOGICAL RELEVANCE; HYDROGEN **PEROXIDE**; OXYGEN; WISCONSIN **PRESERVATION** FLUID

RN 526-95-4D (GLUCONIC ACID)
15438-31-0D (IRON-(II))
20074-52-6 (IRON-(III))
7722-84-1 (HYDROGEN **PEROXIDE**)
7782-44-7 (OXYGEN)

L34 ANSWER 16 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1992:407185 BIOSIS
DN BA94:70385
TI ISSUES SURROUNDING THE **PRESERVATION** OF VIABLE **ALLOGRAFT** HEART VALVES.
AU MCNALLY R T; BROCKBANK K G M
CS CRYOLIFE INC., 2211 NEWMARKET PARKWAY, SUITE 142, MARIETTA, GA. 30067, USA.
SO J MED ENG TECHNOL, (1992) 16 (1), 34-38.
CODEN: JMTEDN. ISSN: 0309-1902.
FS BA; OLD
LA English
AB **Allograft** heart valves have been used for over 30 years. During the first decades of use, the research and clinical objectives were to find a means for long-sterm storage of tissue. Methods such as irradiation, glutaraldehyde fixation, long-term **antibiotic** storage at 4.degree. C and other methods were common. These methods, howver, were found to give reduced long-term clinical performance when compared with viable fresh tissue or tissue which had been **cryopreserved**. Recognizing this fact, more recent emphasis has been to address issues surrounding means by which **allografts** can be **cryopreserved** and thawed to retain maximum viability. An

additional concern was to find a means to maximize donor retrieval by salvaging tissue which normally would be discarded because of bacterial contamination. This study demonstrates that when a proper **cryopreservation** technique is used, with stringent **antibiotic** treatments, biomechanical parameters remain normal with only a slight decrease in cell viability.

IT Miscellaneous Descriptors
HUMAN BACTERIA MICROORGANISM BACTERIAL CONTAMINATION **ANTIBIOTIC** TREATMENT CELL VIABILITY **CRYOPRESERVATION** **TRANSPLANTATION** METHOD PROSTHETIC

L34 ANSWER 17 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1992:161656 BIOSIS
DN BA93:83981
TI THE EFFECT OF BIOLOGICAL WOUND DRESSING ON THE HEALING PROCESS.
AU MAY S R
CS NATL. TISSUE SERV., NATL. HEADQUARTERS, AMERICAN RED CROSS, 1730 E. ST., N.W., WASHINGTON, D.C. 20006.
SO CLIN MATER, (1991 (1992)) 8 (3-4), 243-250.
CODEN: CLNME2. ISSN: 0267-6605.
FS BA; OLD
LA English
AB Three major biological dressings are available for the temporary closure of wounds: partial-thickness cadaveric human allograft skin, several forms of partial-thickness **antibiotic**-treated porcine xenograft skin, and human amnion. Generally, biological dressings reduce pain, close the wound to contamination and fluid loss, and prepare the wound bed for permanent closure, usually with autografts. The three types of biological dressings differ in their performance, with allograft skin being clearly superior in its wound maintenance and **preparation** characteristics, while porcine **xenograft** presents serious difficulties in incorporation into the wound bed and antigenic challenge to the recipient, and amnion is excessively fragile and tends to allow wound desiccation. The most serious potential liability of biological wound dressings is transmission of infection; however, the actual incidence of such transmission is extremely low. The advantages of physiological coverage provided by biological wound dressings greatly outweighs the chance for harm in the case of human allograft.
IT Miscellaneous Descriptors
REVIEW PORCINE INFECTION ALLOGRAFT

L34 ANSWER 18 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1992:91436 BIOSIS
DN BA93:47986
TI **PRESERVATION** OF RABBIT KIDNEYS USING A SOLUTION CONTAINING HYDROLYZED STARCH.
AU NORBY J; JACOBSEN I A; PEGG D E; STARKLINT H; CHEMNITZ J; DIAPER M P
CS LAB. NEPHROPATHOL., INST. PATHOL., ODENSE UNIV., DENMARK.
SO TRANSPLANTATION (BALTIMORE), (1991) 52 (5), 799-804.
CODEN: TRPLAU. ISSN: 0041-1337.
FS BA; OLD
LA English
AB An organ **preservation** solution has been developed by combining some features of the **hypertonic** citrate formulation of Ross, Marshall, and Escott (RME) with some features of UW solution. Specifically the solution (HP16) contains a balance of cations similar to that in RME and the same concentration of citrate, but sulfate is replaced by chloride and mannitol by a starch hydrolysis product (SHP). A gelatin-derived polypeptide (Haemaccel) is included to provide colloid osmotic pressure. The objective was to increase the effectiveness of RME by using a

higher-molecular-weight osmoticum than mannitol, but avoiding the expense of raffinose; reducing the osmolality to a more physiological level; and including a colloid to make the solution suitable for continuous perfusion. The effectiveness of the solution was tested by 48-hr hypothermic **preservation** of rabbit kidneys. The results were compared with those obtained using RME or UW. It was shown that simple hypothermic storage was more effective than continuous perfusion, and that HP16 was more effective than RME and as effective as UW. The improvement over RME was ascribed to the isotonic osmolality and the inclusion of a higher-molecular-weight osmoticum (the SHP), possibly supplemented by the colloid (Haemaccel). Two SHP preparations, both with dextrose-equivalent values of .apprx.35, were equally effective. These materials contain a standardized mixture of dextrose, maltose, and tri- and oligosaccharides, and have the osmotic properties of a trisaccharide. The results provide a new, inexpensive **preservation** solution that is as effective as any so far tested with this model, and they support the importance of appropriate osmotic properties for solutions to be used in organ **preservation**.

IT Miscellaneous Descriptors
ROSS-MARSHALL-ESCOTT SOLUTION UNIVERSITY OF WISCONSIN **PRESERVATION** SOLUTION HAEMACCEL **HYPERTONIC** CITRATE CONCENTRATION HYPOTHERMIC **PRESERVATION ORGAN TRANSPLANTATION**

RN 126-44-3 (CITRATE)
9005-25-8 (STARCH)

L34 ANSWER 19 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1991:438106 BIOSIS
DN BA92:94271
TI TWO-DAY PRESERVATION OF MAJOR **ORGANS** WITH AUTOPERFUSION MULTIORGAN **PREPARATION** AND HIBERNATION INDUCTION TRIGGER A PRELIMINARY REPORT.
AU CHIEN S; OELTGEN P R; DIANA J N; SHI X; NILEKANI S P; SALLEY R
CS DEP. SURGERY, UK MED. CENTER, LEXINGTON, KY. 40536.
SO J THORAC CARDIOVASC SURG, (1991) 102 (2), 224-234.
CODEN: JTCSAQ. ISSN: 0022-5223.
FS BA; OLD
LA English
AB A new autoperfusion multiogran preparation was studied in which the heart and lungs were removed with the liver, pancreas, duodenum, and both kidneys en bloc while being perfused by the heart and oxygenated by the lungs. A respirator with 50% oxygen was used for ventilation. Fresh blood, glucose, electrolytes, mannitol, and antibiotics were given through the portal vein. Fifteen mongrel dogs were used. In the study group (seven dogs), 10 ml of plasma containing hibernation induction trigger, obtained from deeply hibernating woodchucks, was given intravenously 2 hours before the operation, and 4 ml was given eveyr 4 hours during the preservation period. In the control group (eight dogs), no hibernation induction trigger was used. Survival time in the study group ranged from 33 to 56 hours (mean 43.4 .+-. 4.1 hours), longer than that of the control group, which was 9 to 31 hours (mean 16.2 .+-. 2.6 hours, $p < 0.001$). In the study group aortic systolic pressure ranged from 64 .+-. 5 to 92 .+-. 7 mm Hg, arterial oxygen tension from 180 .+-. 35 to 285 .+-. 66 mm Hg. Urine output ranged from 15 to 70 ml/hour. Blood **urea** nitrogen declined from 15.6 .+-. 2.5 to 6.6 .+-. 1.3 mg/dl ($p < 0.0$); creatinine declined from 0.8 .+-. 0.03 to 0.3 .+-. 0.1 mg/dl ($p < 0.01$). Severe liver congestion and premature renal failure occurred in the control group but did not occur in the study group. In the study group one lung was **transplanted** after 33 hours of preservation with simultaneous contralateral pulmonary artery ligation. Good lung function was

maintained after **transplantation**. Although the exact mechanism by which hibernation induction trigger extends tissue survival time is still not clear, its effect on organ preservation is profound. This study also produced one of the longest average survival times for organ preservation.

IT Miscellaneous Descriptors
DOG WOODCHUCK HEART LUNG LIVER PANCREAS DUODENUM KIDNEY

L34 ANSWER 20 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1989:422671 BIOSIS
DN BA88:80929
TI EIGHTEEN TO 37 HOURS' **PRESERVATION** OF MAJOR ORGANS USING A NEW AUTOPERFUSION MULTIORGAN PREPARATION.
AU CHIEN S; DIANA J N; OELTGEN P R; TODD E P; O'CONNOR W N; CHITWOOD W R JR
CS DIV. CARDIOTHORACIC SURGERY, UK MED. CENT., LEXINGTON, KENTUCKY 40536.
SO ANN THORAC SURG, (1989) 47 (6), 860-867.
CODEN: ATHSAK.
FS BA; OLD
LA English
AB A new autoperfusion preparation was used to **preserve** six major organs simultaneously. In 7 Yorkshire white swine, the heart and lungs were separated and removed with the liver, pancreas, duodenum, and both kidneys en bloc while they were self-perfused. Fresh blood, glucose, electrolytes, heparin sodium, methylprednisolone, and a fat emulsion (Soyacal) were infused through the portal vein. No inotropic drugs were necessary. The organs survived for 18 to 37 hours (average survival, 24.6 .+-. 2.7 hours [.+-. standard error of the mean]). Aortic systolic pressure ranged from 78.5 .+-. 5.5 to 98.7 .+-. 11.8 mm Hg. Arterial oxygen tension ranged from 206 .+-. 23 to 266 .+-. 15 mm Hg and arterial carbon dioxide tension, from 20.1 .+-. 2.7 to 32.1 .+-. 4.9 mm Hg. Blood lactic acid levels decreased from 8.75 .+-. 2.06 to 5.50 .+-. 2.45 mmol/L at 24 hours. Urine output ranged from 25 to 82 mL/h. Blood **urea** nitrogen levels decreased from 9.17 .+-. 0.59 to 4.67 .+-. 1.08 mg/dL. Blood creatinine levels decreased from 1.34 .+-. 0.10 to 0.57 .+-. 0.22 mg/dL. Serum glutamic-oxaloacetic transaminase levels increased from 73.4 .+-. 26.3 to 194 .+-. 179.5 U/L and serum glutamic-pyruvic transaminase levels, from 44.8 .+-. 5.7 to 91 .+-. 66.4 U/L. Red blood cell count ranged from 6.94 .+-. 0.58 to 13.23 .+-. 2.30 .times. 106/.mu.L. Lung wet/dry weight ratios changed from 5.79 .+-. 0.17 at the beginning to 6.25 .+-. 0.16 at 24 hours. The technique for simultaneous multiorgan **preservation** presented here is simple, effective, and highly reproducible. This study appears to have produced one of the longest average survival times for autoperfusion.

IT Miscellaneous Descriptors
SWINE HEART LUNG LIVER PANCREAS DUODENUM KIDNEY **ORGAN TRANSPLANTATION** CREATININE LEVELS GLUTAMIC-OXALACETIC TRANSAMINASE GLUTAMIC-PYRUVIC TRANSAMINASE
RN 60-27-5 (CREATININE)
9000-86-6 (GLUTAMIC-PYRUVIC TRANSAMINASE)
9000-97-9 (GLUTAMIC-OXALACETIC TRANSAMINASE)

L34 ANSWER 21 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:350190 BIOSIS
DN BA86:45668
TI NEW CHEMICALLY **PREPARED** VASCULAR **HETEROGRAFTS** METHOD OF OBTAINING AND THEIR PHYSICAL IMMUNOLOGICAL AND BIOLOGICAL PROPERTIES.
AU NOSZCZYK W; BIELSKA H; GESLA J; KAWALEC M; KIENIEWICZ S; WASIUTYNSKI A
CS I KLINIKA CHIRURGII OGOLNEJ, KONDRATOWICZA 8, 03-242 WARSZAWA, POLAND.
SO MATER MED POL, (1987) 19 (4), 227-233.
CODEN: MMDPA6. ISSN: 0025-5246.

FS BA; OLD
LA English
AB An original technique of the **preparation** of bovine arterial **heterograft** was invested. Bovine carotid arteries used for the experiments were treated with simple inorganic compounds (calcium **hydroxide**, hydrochloric acid). The obtained arterial heterografts were sterile after sterilization with gamm-radiation. Mechanical (physical) properties of the obtained arterial heterografts were similar to those of the human femoral arteries and better than those of enzymatically treated bovine carotids. The antigenicity of the **prepared** arterial **heterografts** was tested by methyl-3H-thymidine incorporation into the isolated lymphocytes from the regional lymphatic nodes 7 days after transplantation. The examined heterografts showed no detectable antigenic properties. The prepared new arterial prostheses were transplanted into the abdominal aorta in 13 mongrel dogs which were followed-up for a period between one and twelve months. Two dogs are alive still, i.e. after sixteen months. Complications were noted in only two dogs: infection of the prosthesis in one, and acute thrombosis in another dog. The arterial prosthesis in the remaining 11 dogs were patent. Autopsies and microscopic examination confirmed the compatibility of the prostheses. Bovine carotids, treated chemically, were transplanted into the inferior vena cava in 8 dogs. Three prostheses were patent 11-month follow-up. Two dogs are alive still. The authors conclude that the proposed chemical treatment is simple cheap, and the obtained prostheses are suitable for replacement of medium and small calibre arteries.
IT Miscellaneous Descriptors
DOG CALCIUM **HYDROXIDE** HYDROCHLORIC ACID FEMOROPOPLITEAL OCCLUSION
RN 1305-62-0 (CALCIUM **HYDROXIDE**)
7647-01-0 (HYDROCHLORIC ACID)

L34 ANSWER 22 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1987:183725 BIOSIS
DN BR32:90852
TI **ANTIBIOTIC** STERILIZATION IN THE **PREPARATION** OF HOMOVITAL **HOMOGRAFT** VALVES IS IT NECESSARY.
AU GONZALEZ-LAVIN L; MCGRATH L B; GRAF D; ALVAREZ M
CS DEBORAH HEART AND LUNG CENT., BROWNS MILLS, N.J.
SO 36TH ANNUAL SCIENTIFIC SESSION OF THE AMERICAN COLLEGE OF CARDIOLOGY, NEW ORLEANS, LOUISIANA, USA, MARCH 8-12, 1987. J AM COLL CARDIOL. (1987) 9 (2 SUPPL A), 89A.
CODEN: JACCDI. ISSN: 0735-1097.
DT Conference
FS BR; OLD
LA English
IT Miscellaneous Descriptors
ABSTRACT STAPHYLOCOCCUS-AUREUS PROPIONIBACTERIUM DIPHTHEROIDS FUNGUS HUMAN NEOMYCIN CEFOXITIN NYSTATIN TICARCILLIN POLYMYXIN RETROSTERNAL INFECTION
RN 1400-61-9 (NYSTATIN)
1404-04-2 (NEOMYCIN)
1406-11-7 (POLYMYXIN)
34787-01-4 (TICARCILLIN)
35607-66-0 (CEFOXITIN)

L34 ANSWER 23 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1987:20982 BIOSIS
DN BA83:10916
TI DEFINITION OF NORMOTHERMIC ISCHEMIA LIMITS FOR KIDNEY AND PANCREAS GRAFTS.

AU FLORACK G; SUTHERLAND D E R; ASCHERL R; HEIL J; ERHARDT W; NAJARIAN J S
CS BOX 280, UNIV. MINN. HOSP., 420 DELAWARE ST. S.E., MINNEAPOLIS, MINN. 55455.
SO J SURG RES, (1986) 40 (6), 550-563.
CODEN: JSGRA2. ISSN: 0022-4804.
FS BA; OLD
LA English
AB Normothermic ischemia tolerance is an important aspect of **organ** procurement and **transplantation**. The function of pancreas and kidney **autografts** was investigated in totally pancreatectomized or nephrectomized canine recipients. In 30 dogs the left limb (tail) of the pancreas was removed but left in the abdominal activity after cessation of blood flow to produce warm ischemia for 30, 60, and 120 min (10 dogs at each time point), and then was flushed with cold Ringers' lactate and transplanted to the iliac vessels. Twenty dogs with fresh pancreatic transplants were controls. The success rate of pancreas transplants with warm ischemia of 1/2 and 1 hr was the same as that of controls (80%); however, after 1 hr normothermia 5/10 dogs had episodes of hyperglycemia for 1 week before glucose levels came back to normal. All but one graft with 2 hr warm ischemia failed. Intravenous glucose tolerance test (IVGTT) mean (.+-.SEM) K values were not different in the successful groups, i.e., no warm ischemia: = 1.55 .+-. 0.15%; 1/2 hr warm ischemia: -1.81 .+-. 0.18%; 1 hr warm ischemia: - 1.64 .+-. 0.09%. Amylase levels increased after transplant with maximum values at Day 2, then returned to normal, but the levels remained elevated in recipients of grafts subjected to longer normothermia with evidence of pancreatitis after 1 hr warm ischemia. Fifteen kidney grafts were treated similarly with warm ischemia exposure of 1/2 hr (n = 9) and 1 hr (n = 6) before being flushed and autotransplanted, and were compared to 16 fresh kidney transplants. After 1/2 hr warm ischemia none of the kidney grafts failed but 78% of the recipients had elevated serum creatinine and **urea** nitrogen levels which returned slowly to normal after 3 to 4 weeks. There was only one long-term survivor after 1 hr warm ischemia. Thus the pancreas seems to be more resistant to warm ischemia damage than is the kidney. This difference should be taken into consideration in regard to **organ** procurement for clinical **transplantation**.
IT Miscellaneous Descriptors
DOG HYPERGLYCEMIA AMYLASE LEVEL SERUM CREATININE **ORGAN TRANSPLANTATION** WARM ISCHEMIA **UREA** NITROGEN ORGAN **PRESERVATION**
RN 57-13-6 (**UREA** NITROGEN)
60-27-5 (CREATININE)
9000-92-4 (AMYLASE)

L34 ANSWER 24 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1983:289795 BIOSIS
DN BA76:47287
TI HISTOLOGICAL ASSESSMENT OF ORTHOTOPIC AORTIC VALVE LEAFLET ALLO **GRAFTS** ITS ROLE IN SELECTING **GRAFT** PRE TREATMENT.
AU ARMIGER L C; GAVIN J B; BARRATT-BOYES B G
CS DEP. PATHOLOGY, AUCKLAND UNIV. SCH. MED., PRIVATE BAG, AUCKLAND, N.Z.
SO PATHOLOGY, (1983) 15 (1), 67-74.
CODEN: PTLGAX. ISSN: 0031-3025.
FS BA; OLD
LA English
AB Histopathological studies of human cardiac valve **grafts** recovered at autopsy or reoperation, together with long-term clinical follow-up of valve **graft** recipients, show that the success of **grafts** is largely dependent upon the extent to which they are replaced by host fibrous connective **tissue**. To find the valve

preparation technique with least inhibitory effect on tissue ingrowth after **grafting**, various sterilizing and storage procedures were evaluated using a series of aortic valve leaflet **allografts** in dogs. To facilitate evaluation, a method for rapidly assaying relative degrees of colonization of **grafts** was 1st devised. Application of this method has unequivocally identified a newly-formulated **antibiotic** solution as the pretreatment most compatible with host tissue ingrowth.

IT Miscellaneous Descriptors
HUMAN DOG FIBROUS CONNECTIVE TISSUE **ANTIBIOTIC**

L34 ANSWER 25 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1980:241745 BIOSIS
DN BA70:34241
TI BIOCHEMICAL CHANGES FOLLOWING **TRANSPLANTATION** OF **PRESERVED** BLADDER ALLO GRAFTS IN BUFFALO CALVES.
AU GERA K L; NIGAM J M; TYAGI R P S
CS DEP. VET. SURG. RADIOL., COLL. VET. SCI, HARIANA AGRIC. UNIV., HISSAR, HARIANA, INDIA.
SO INDIAN VET J, (1980) 57 (1), 67-72.
CODEN: IVEJAC. ISSN: 0019-6479.
FS BA; OLD
LA English
AB Reconstruction of a functional bladder after partial cystectomy was successfully accomplished using bladder **allograft**. The levels of Ca, inorganic P, blood **urea** N, creatinine, Na and K were studied before and after transplantation.
IT Miscellaneous Descriptors
CALCIUM PHOSPHORUS BLOOD **UREA** NITROGEN CREATININE SODIUM POTASSIUM
RN 57-13-6 (**UREA** NITROGEN)
60-27-5 (CREATININE)
7440-09-7 (POTASSIUM)
7440-23-5 (SODIUM)
7440-70-2 (CALCIUM)
7723-14-0 (PHOSPHORUS)

L34 ANSWER 26 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1978:113887 BIOSIS
DN BA65:887
TI THE GLUTARALDEHYDE TREATED HETERO GRAFT VALVE SOME ENGINEERING OBSERVATIONS.
AU THOMSON F J; BARRATT-BOYES B G
CS DEP. MECH. ENG., SCH. ENG., UNIV. AUCKL., AUCKLAND, N.Z.
SO J THORAC CARDIOVASC SURG, (1977) 74 (2), 317-321.
CODEN: JTCSAQ. ISSN: 0022-5223.
FS BA; OLD
LA English
AB Two commercially **prepared**, glutaraldehyde-treated porcine **heterograft** valves mounted on flexible stents were tested in a pulsatile-flow water tunnel. Measurements of the radial deflections of the stent posts were made for various applied pressures across the valve. A previous claim of 90% reduction in leaflet stress as a result of stent flexibility is of doubtful validity because the measurement technique used was inappropiate for the magnitude of strain involved. Photographs of the valve at various steady forward flow rates show that the leaflets do not open as readily as the **antibiotic**-treated homograft valve.
IT Miscellaneous Descriptors
PORCINE **ANTIBIOTIC** TREATMENT
RN 111-30-8 (GLUTARALDEHYDE)

L34 ANSWER 27 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1977:226572 BIOSIS
DN BA64:48936
TI INFLUENCE OF VIABILITY ON CANINE ALLO GRAFT HEART VALVE STRUCTURE AND FUNCTION.
AU WHEATLEY D J; MCGREGOR C G A
SO CARDIOVASC RES, (1977) 11 (3), 233-230.
CODEN: CVREAU. ISSN: 0008-6363.
FS BA; OLD
LA Unavailable
AB A study was undertaken to determine whether, in **antibiotic** sterilized and stored valves, the state of preimplantation leaflet viability could be shown to influence valve structure and function following isotopic allotransplantation in dogs. Fourteen viable and 12 nonviable valves were assessed after periods of up to 8 wk implantation. Assessment of valve structure was made macroscopically with measurement of leaflet surface areas, and microscopically. Pressure measurements were made across the allografted valve both at insertion and at removal. Preimplantation viability apparently results in gross valve leaflet distortion and shrinkage with consequent loss of function. Nonviable valves, in contrast, showed minimal alteration in valve dimensions with retention of normal function. These findings have considerable implications in the **preparation** and clinical use of **allograft** heart valves.
IT Miscellaneous Descriptors
DOG TRANSPLANTATION

L34 ANSWER 28 OF 28 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1976:239646 BIOSIS
DN BA62:69646
TI EFFECTIVE **PRESERVATION** AND TRANSPORTATION OF LUNG **TRANSPLANTS**.
AU VEITH F J; CRANE R; TORRES M; COLON I; HAGSTROM J W C; PINSKER K; KOERNER S K
SO J THORAC CARDIOVASC SURG, (1976) 72 (1), 97-105.
CODEN: JTCSAQ. ISSN: 0022-5223.
FS BA; OLD
LA Unavailable
AB To evaluate a system for **preserving** and transporting lungs before transplantation, the left lungs of 37 dogs were removed flushed with a **hypertonic** solution having an electrolyte composition resembling intracellular fluid and immersed at 4.degree. C. for 7-24 h. Some lungs were maintained at exactly 4.degree. C during transport by means of a mixture of solid and liquid 1-hexadecene. The lungs were allografted into immunosuppressed dogs whose right pulmonary artery was immediately ligated. Twelve recipients (32%) survived 5 days or more solely on the function of the **preserved** lung. Four survived 10, 19, 40 and 40 days, respectively, with lungs that had been **preserved** for 7-21 h. Survival of recipients of **preserved** lungs (5 .+-. 2 days) was equivalent to that of 75 comparably immunosuppressed recipients of **nonpreserved allografts** (6 .+-. 1 days). One group of 10 dogs receiving lungs flushed against outflow resistance survived 12 .+-. 5 days. In recipients of **preserved allografts**, artrial O2 tensions remained in the normal range up to 5 wk after transplantation, and radiographic infiltrates in the transplant were no greater than those present in recipients of **nonpreserved** transplants. Lungs transported and **preserved** up to 21 h can provide total pulmonary function after transplantation and can function at least as well as **nonpreserved**

transplants. The effectiveness and simplicity of this method are such that it might be considered for use in man.

IT Miscellaneous Descriptors
DOG HUMAN RIGHT PULMONARY ARTERY LIGATION LIQUID HEXA DECANE COOLING ARTERIAL OXYGEN TENSION IMMUNO SUPPRESSED RADIOGRAPHIC INFILTRATES

RN 544-76-3 (HEXA DECANE)
7782-44-7 (OXYGEN)

```
=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 12:57:27 ON 17 DEC 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1907 - 17 Dec 2001  VOL 135 ISS 26
FILE LAST UPDATED: 16 Dec 2001  (20011216/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

 This file supports REG1stRY for direct browsing and searching of
 all substance data from the REGISTRY file.  Enter HELP FIRST for
 more information.

HCAplus now provides online access to patents and literature
covered in CA from 1907 to the present.  Bibliographic
information and abstracts were added in 2001 for over 3.8
million records from 1907-1966.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d his


     (FILE 'HOME' ENTERED AT 12:33:28 ON 17 DEC 2001)

     FILE 'HCAPLUS' ENTERED AT 12:33:47 ON 17 DEC 2001
L1        561588 S ORGAN# OR TISSUE#
L2          7821 S ALLOGRAFT# OR HOMOGRAFT# OR XENOGRAFT# OR ALLOGRAFT# OR AUTOG
L3         34373 S TRANSPLANT?
L4        568794 S L1 OR L2
L5         25732 S L4 (L) (PREPAR? OR PREPN OR PRESERV? OR CRYOPRES?)
L6          1120 S L5 AND L3
L7           160 S L5 AND L2
L8          1165 S L7 OR L6
L9          6217 S XENOTRANSPLANT? OR ALLOTRANSPLANT? OR AUTOTRANSPLAN? OR HETER
L10         6373 S XENOTRANSPLANT? OR ALLOTRANSPLANT? OR AUTOTRANSPLAN? OR HETER
L11          103 S L10 AND L5
L12         1167 S L11 OR L8
L13         2723 S L1 (L) STORAGE
L14          122 S L13 AND (L3 OR L2 OR L10)
L15         1195 S L14 OR L12

     FILE 'REGISTRY' ENTERED AT 12:42:17 ON 17 DEC 2001
               E BLEACH/CN
               E HYPOCHLORITE/CN
```

```
L16           1 S E3
                E CHLORINE HYPOCHLORITE/CN
                E SODIUM HYPOCHLORITE/CN
L17           1 S E3
                E CALCIUM HYPOCHLORITE/CN
L18           1 S E3
                E POVIDONE IODINE/CN
L19           2 S E10
                E POTASSIUM HYDROXIDE/CN
L20           1 S E3
                E AMMONIUM HYDROXIDE/CN
L21           1 S E3
                E CALCIUM HYDROXIDE/CN
L22           1 S E3
                E SODIUM DODECYLSULFATE/CN
L23           1 SS E4
                E UREA/CN
L24           1 S E3
                E PHENOL/CN
L25           1 S E3
                E FORMIC ACID/CN
L26           1 S E3
                E SODIUM HYDROXIDE/CN
L27           1 S E3
                E HYDROGEN PEROXIDE/CN
L28           1 S E3
                E PERACETIC ACID/CN
L29           1 S E3
                E PERBENZOIC ACID/CN
L30           1 S E3
                E BENZOYL PEROXIDE/CN
L31           1 S E3
                E SODIUM PEROXIDE/CN
L32           1 S E3
                E POTASSIUM PERMANGANATE/CN
L33           1 S E3

     FILE 'HCAPLUS' ENTERED AT 12:47:34 ON 17 DEC 2001
L34       19789 S L16 OR L17 OR L18 OR HYPOCHLORITE OR BLEACH
L35           1 S L34 AND L15
L36       73101 S IODOPHOR OR IODINE OR L19
L37           6 S L15 AND L36
L38        2409 S HYPERTONIC
L39           2 S L15 (L) L38
L40           2 S L15 AND L38
L41      130716 S PEROXIDE# OR L32 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR
L42          18 S L15 AND L41

     FILE 'REGISTRY' ENTERED AT 12:53:31 ON 17 DEC 2001
                E KANAMYCIN/CN
L43           2 S E3

     FILE 'HCAPLUS' ENTERED AT 12:53:40 ON 17 DEC 2001
L44        6262 S L43 OR KANAMYCIN
L45       94093 S ANTIBIOTIC?
L46       96323 S L44 OR L45
L47          17 S L15 AND L46
L48          40 S L35 OR L37 OR L39 OR L40 OR L42 OR L47
L49           2 S L44 AND L15
L50          26 S L35 OR L37 OR L39 OR L40 OR L42 OR L49
```

```
L51          40 S L48 NOT L50\
L52          14 S L48 NOT L50
L53       53564 S DETERGENT#
L54           3 S L53 AND L15
L55          28 S L50 OR L54
L56          13 S L52 NOT L55
```

FILE 'HCAPLUS' ENTERED AT 12:57:27 ON 17 DEC 2001

=> d .ca 155 1-28

L55 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:886801 HCAPLUS
TITLE: Method for chemically acellularizing a biological tissue sample
INVENTOR(S): Dennis, Robert G.; Kuzon, William M.; Cederna, Paul S.
PATENT ASSIGNEE(S): The Regents of the University of Michigan, USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp., Cont.-in-part of U.S. Ser. No. 709,890.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001049138	A1	20011206	US 2001-896651	20010629
US 6207451	B1	20010327	US 1998-153721	19980915

PRIORITY APPLN. INFO.: US 1998-153721 A3 19980915
US 2000-709890 A2 20001109

AB A method for chem. acellularizing a biol. tissue sample, such as a peripheral nerve, is provided. The method includes disrupting the cell membranes of the biol. tissue sample, and then denaturing intracellular proteins within the cells of the tissue sample and removing the denatured proteins from the cells while preserving the extracellular matrix to produce an acellularized tissue construct.

IC ICM C12N005-06
NCL 435325000
CC 63-3 (Pharmaceuticals)
IT **Detergents**
(ionic; method for chem. acellularizing a biol. tissue sample)
IT Animal cell
Animal tissue
Cell membrane
Detergents
Extracellular matrix
Physiological saline solutions
Preservation
Samples
Solutions
Transplant and **Transplantation**
(method for chem. acellularizing a biol. **tissue** sample)
IT **Detergents**
(nonionic; method for chem. acellularizing a biol. tissue sample)

L55 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:209393 HCAPLUS
DOCUMENT NUMBER: 135:286845
TITLE: Development of a human proximal tubule cell culture

acidotic/WIT model
AUTHOR(S): Owen, D. R.; Bakeer, M.; Brockbank, K. G. M.
CORPORATE SOURCE: Organ Recovery Systems, Inc., Charleston, SC, USA
SOURCE: Transplant. Proc. (2001), 33(1-2), 895-897
CODEN: TRPPA8; ISSN: 0041-1345
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The study aims to det. whether or not the human proximal tubule cell line, HK-2, might be a suitable cell line for modeling of postmortem kidney acidosis and hypoxia. The model used simulated a period of kidney acidosis and hypoxia following cessation of kidney donor cardiovascular function, introduction of hypothermic storage soln. and storage, and rewarming to simulate implantation. Canine kidneys were obtained from mongrel dogs at varying periods postmortem. Expts. using HK-2 cells as an in vitro acidotic, warm ischemia model of postmortem kidneys showed that acidosis, but not hypoxia, has a significant effect on survival of this proximal tubule cell line. Catalase treatment improved the survival in an acidotic environment. These observations also confirmed a role for hydrogen peroxide in the pathobiol. of kidneys following exposure to warm ischemia postmortem.
CC 14-12 (Mammalian Pathological Biochemistry)
ST catalase proximal tubule cell apoptosis kidney acidosis hypoxia model; reactive oxygen hydrogen **peroxide** antioxidant oxidative stress kidney **transplantation**
IT **Organ preservation**
Oxidative phosphorylation, biological
(effect of catalase on human proximal tubule cell survival in acidotic/hypoxic environment in relation to)
IT **Transplant** and **Transplantation**
(kidney; effect of catalase on human proximal tubule cell survival in acidotic/hypoxic environment in relation to)
IT Kidney
(**transplant**; effect of catalase on human proximal tubule cell survival in acidotic/hypoxic environment in relation to)
IT **7722-84-1**, Hydrogen **peroxide**, biological studies
7782-44-7D, Oxygen, reactive species
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BIOL (Biological study); PROC (Process)
(effect of catalase on human proximal tubule cell survival in acidotic/hypoxic environment in relation to)
REFERENCE COUNT: 9
REFERENCE(S): (2) Bosco, P; Arch Surg 1988, V123, P601 HCAPLUS
(3) Campbell, G; CMAJ 1999, V160, P1573 MEDLINE
(4) Cho, Y; N Engl J Med 1998, V338, P221 MEDLINE
(7) Ryan, M; Kidney Int 1994, V45, P48 MEDLINE
(9) Van der Werf, W; Surg Clin North America 1998, V78, P41 MEDLINE
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:814300 HCAPLUS
DOCUMENT NUMBER: 133:366422
TITLE: Pyruvate, antioxidants, and lipids in neuroprotective compositions
INVENTOR(S): Paquin, Joanne; Mateescu, Mircea-alexandru; De Grandpre, Eric
PATENT ASSIGNEE(S): Gestilab Inc., Can.
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000067744	A1	20001116	WO 2000-CA523	20000505

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: CA 1999-2270795 A 19990505

AB A neuroprotective compn. for protecting neuronal cells against oxidative stress and methods for using and prepg. the same. More particularly, the neuroprotective compn. of the invention comprises a mixt. of pyruvate, antioxidant, and lipid(s) such as fatty acids. The neuroprotective compn. could be used for the treatment of brain trauma, brain or cerebrovascular ischemia, neurodegenerative diseases, poisoning of neuronal cells, the diminution of drugs side effects and for preservation of neuronal grafts. For example, TRIAD (a combination of Na pyruvate, Vitamin E, and egg yolk fatty acids) had an antioxidant neuroprotective action on cultured P19 neurons exposed to oxidative stress. Optimal concns. vary with the type and prooxidant power of reactive oxygen species generating systems. Pyruvate was a major contributor of antioxidant properties of TRIAD ex vivo (heart, not shown) and in neuronal cultures, esp. when TRIAD is administered just prior induction of an oxidative stress and remains present for short time of treatment (30-40 min for neurons). The contribution of vitamin E and egg yolk fatty acids may appear even more important in antioxidant defense when TRIAD is administered for longer periods (before, during and after oxidative stress).

IC ICM A61K031-19
ICS A61K031-23; A61K031-355; A61P025-00; A61P009-00

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Transplant** and **Transplantation**
(neural, preservation of; synergistic effects of pyruvate, antioxidants, and lipids in neuroprotective compns.)

IT **Organ preservation**
(neuronal graft; synergistic effects of pyruvate, antioxidants, and lipids in neuroprotective compns.)

IT Neuron
(**transplant**, preservation of; synergistic effects of pyruvate, antioxidants, and lipids in neuroprotective compns.)

IT 3352-57-6, Hydroxyl, biological studies **7722-84-1**, Hydrogen **peroxide**, biological studies 7782-44-7D, Oxygen, radicals 11062-77-4, Superoxide
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BIOL (Biological study); PROC (Process)
(synergistic effects of pyruvate, antioxidants, and lipids in neuroprotective compns.)

REFERENCE COUNT: 2
REFERENCE(S): (1) Izumi, Y; US 5395822 A 1995 HCAPLUS
(2) Kleine, N; DE 3442725 A 1986 HCAPLUS

L55 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:549112 HCAPLUS
DOCUMENT NUMBER: 131:155521
TITLE: Method of processing and **preserving** collagen based **tissues**
INVENTOR(S): Livesey, Stephen A.; Coleman, Christopher L.; Boerboom, Lawrence E.; Griffey, Edward S.
PATENT ASSIGNEE(S): Lifecell Corporation, USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941981	A1	19990826	WO 1999-US3667	19990219
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9927753	A1	19990906	AU 1999-27753	19990219
EP 1056335	A1	20001206	EP 1999-908285	19990219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1998-75472 P 19980220
WO 1999-US3667 W 19990219

AB A process for the preserving collagen-based tissues involves procuring the collagen-based tissue; treating the tissue in a detergent soln.; treating the tissue in an enzyme soln.; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via the Maillard reaction and the subsequent formation of advanced glycosylation end products; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via reactive oxidative species of mols.; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via the formation and propagation of mol. free radicals; treating the tissue in a cryopreservation soln.; and cryopreserving the tissue. The process may be utilized to preserve several differing types of collagen based tissue including heart valve, vascular grafts including veins and arteries, umbilical vessels, nerve and nervous system tissue, dura, dermis and other similar collagen based tissues. An example is given detailing procurement of pig heart valve, decellularization, and cryopreservation.

IC ICM A01N001-00
CC 9-11 (Biochemical Methods)
ST collagen based **tissue preservation**
IT Skin
(dermis; **preservation** of collagen based **tissues**)
IT Antibiotics
Antimicrobial agents
Artery
Buffers
Detergents
Glycosylation

Maillard reaction
Nerve
Preservation solutions (**tissue**)
Transplant and **Transplantation**
Vein
(**preservation** of collagen based **tissues**)

IT Collagens, biological studies
Enzymes, biological studies
Flavonoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**preservation** of collagen based **tissues**)

IT **Cryopreservation**
(**tissue**; **preservation** of collagen based **tissues**)

IT Heart
(valve; **preservation** of collagen based **tissues**)

IT Umbilical cord
(vessels; **preservation** of collagen based **tissues**)

IT 50-81-7, L-Ascorbic acid, biological studies 59-02-9, .alpha.-Tocopherol 60-00-4, Edta, biological studies 67-68-5, Dmso, biological studies 70-18-8, Reduced glutathione, biological studies 79-17-4, Aminoguanidine 83-44-3, Deoxycholic acid 83-86-3, Phytic acid 124-07-2, Octanoic acid, biological studies 138-14-7, Deferoxamine mesylate 7647-14-5, Sodium chloride, biological studies 9001-05-2, Catalase 9001-84-7, Phospholipase A 9001-86-9, Phospholipase C 9003-98-9, DNase 9036-19-5, tert-Octylphenoxypolyethoxyethanol 9050-36-6, Maltodextrin 9054-89-1, Superoxide dismutase 29836-26-8, n-Octyl .beta.-D-glucopyranoside 53188-07-1, 6-Hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid 75621-03-3, Chaps
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**preservation** of collagen based **tissues**)

REFERENCE COUNT: 1
REFERENCE(S): (1) Cryolife Inc; WO 9524873 A 1995

L55 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:178495 HCAPLUS
DOCUMENT NUMBER: 130:350610
TITLE: Contribution of free oxygen radicals to disorders in aerobic metabolism recovery in **transplanted** heart after preservation for different periods
AUTHOR(S): Mil'chakov, V. I.; Dement'eva, I. I.; Dzemeshkevich, I. L.; Palyulina, M. V.
CORPORATE SOURCE: Research Center Surgery, Russian Academy Medical Sciences, Moscow, Russia
SOURCE: Bull. Exp. Biol. Med. (1998), 125(5), 467-470
CODEN: BEXBAN; ISSN: 0007-4888
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Exptl. transplantation of the heart after preservation for different periods in St. Thomas soln. showed that recovery of aerobic metab. during reperfusion is impaired in the transplant weakened by ischemia because of activation of free-radical oxygen-dependent processes. Functional disorders were reversible after preservation for up to 4 h and involved adaptation changes in the recipient. After longer preservation, changes in the myocardium were irreversible. They manifested by failure of recovery of heart function caused by intracellular damage. In addn., pathol. changes were obsd. in the recipient, caused by failure of antioxidant defense. This necessitates modification of the preserving soln. in order to improve the transplant stability. Moreover, antioxidant

drugs should be used for protecting the recipient.
CC 14-5 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 13
ST oxygen radical aerobic metab disorder heart **transplant** preservation
IT Reagents
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(St. Thomas'; reactive oxygen species role in disorders in aerobic metab. recovery in **transplanted** heart after preservation for different periods)
IT Metabolism (animal)
(aerobic metab.; reactive oxygen species role in disorders in aerobic metab. recovery in **transplanted** heart after preservation for different periods)
IT Heart **transplant**
Myocardial ischemia
Organ preservation
Reperfusion
Transplant (organ)
(reactive oxygen species role in disorders in aerobic metab. recovery in **transplanted** heart after **preservation** for different periods)
IT Lipid **peroxides**
Reactive oxygen species
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BPR (Biological process); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
(reactive oxygen species role in disorders in aerobic metab. recovery in **transplanted** heart after preservation for different periods)
IT 7782-44-7D, Oxygen, radical
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BPR (Biological process); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
(reactive oxygen species role in disorders in aerobic metab. recovery in **transplanted** heart after preservation for different periods)
IT 50-21-5, Lactic acid, biological studies 50-99-7, D-Glucose, biological studies 124-38-9, Carbon dioxide, biological studies 7440-09-7, Potassium, biological studies 7782-44-7, Oxygen, biological studies
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(reactive oxygen species role in disorders in aerobic metab. recovery in **transplanted** heart after preservation for different periods)
REFERENCE COUNT: 8
REFERENCE(S): (1) Bando, K; J Surg Res 1989, V46(2), P52
(2) Bolli, R; J Am Coll Cardiol 1988, 12, P239
(3) Chancerelle, Y; Am J Cardiol 1991, V60, P813
(5) Ferrari, R; Mol Cell Biochem 1992, V111, P61 HCAPLUS
(7) Korobeinikova, E; Lab Delo 1989, 7, P8 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:324961 HCAPLUS

DOCUMENT NUMBER: 129:14214
TITLE: Methods and articles for the detection of nitric oxide in fluid media using semipermeable membrane bags containing nitric oxide-trapping agents
INVENTOR(S): Lai, Ching-San
PATENT ASSIGNEE(S): Medinox, Inc., USA; Lai, Ching-San
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9820336	A1	19980514	WO 1997-US19119	19971020
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5885842	A	19990323	US 1996-745678	19961108
AU 9748265	A1	19980529	AU 1997-48265	19971020
AU 722709	B2	20000810		
CN 1258354	A	20000628	CN 1997-199504	19971020
EP 1012597	A1	20000628	EP 1997-911028	19971020
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001507789	T2	20010612	JP 1998-521466	19971020
US 6306609	B1	20011023	US 1999-274718	19990322
KR 2000053120	A	20000825	KR 1999-704045	19990507

PRIORITY APPLN. INFO.: US 1996-745678 A1 19961108
WO 1997-US19119 W 19971020

OTHER SOURCE(S): MARPAT 129:14214

AB Non-invasive methods have been developed for the measurement of NO levels in a variety of fluid media, e.g., in mammalian fluids. A semi-permeable membrane bag contg. a nitric oxide-reacting substance is used to trap NO diffusing into the bag. The permeability of selected semi-permeable membranes to nitric oxide, but not to nitrate/nitrite, makes is possible for the semi-permeable membrane bags of the present invention to selectively collect NO, even in the presence of potentially competing species such as nitrate and nitrite. The simple, easy and non-invasive methods of the invention for the measurement of NO levels in fluid media will find a variety of uses, e.g., for diagnosis and monitoring of NO overprodn. or underprodn. that has been assocd. with many inflammatory and infectious diseases. A silicone membrane bag filled with a soln. of (N-methyl-D-glucamine dithiocarbamate)2-Fe complex [(MGD)2-Fe] was placed underneath the tongue of a volunteer. After one hour, the bag was rinsed with distd. water, and the soln. in the bag was transferred into an EPR quartz flat cell. The X-band EPR measurement was performed at room temp. The concn. of the [(MGD)2-Fe-NO] complex detected in the sample was estd. to be about 5.mu.M.

IC ICM G01N030-96
ICS G01N024-00; G01N001-22
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 13, 14, 15, 16, 79
IT **Organ preservation**

Reperfusion
Tissue culture (animal)
(media; nitric oxide detection in fluid media using semipermeable membrane bags contg. nitric oxide-trapping agents)

IT AIDS (disease)
AIDS dementia
Adult respiratory distress syndrome
Air analysis
Allograft rejection
Alzheimer's disease
Amyotrophic lateral sclerosis
Anaphylaxis
Arthritis
Ascitic fluid
Asthma
Atherosclerosis
Autoimmune diseases
Bags
Blood analysis
Body fluid
Burn
Cachexia
Cardiopulmonary bypass
Cerebral ischemia
Chronic fatigue syndrome
Containers
Culture media
Cystic fibrosis
Dermatitis
Diabetes mellitus
ESR spectroscopy
Eczema
Encephalomyelitis
Exhaust gases (engine)
Eye diseases
Fluids
Fluorometry
Gas chromatography
Gastritis
Glomerulonephritis
Graft vs. host reaction
Head injury
Heart diseases
Heart failure
Hemodialysis
Hemorrhagic shock
Hepatitis
Hyperphagia
IR spectroscopy
Immunoassay
Immunohistochemistry
Impotence
Industrial wastes
Infection
Inflammation
Inflammatory bowel diseases
Ischemia
Liquid chromatography
Liquid scintillation counting
Liver cirrhosis

Liver diseases
Lung injury
Malaria
Mass spectrometry
Meningitis
Multiple sclerosis
Myasthenia gravis
Myocarditis
NMR (nuclear magnetic resonance)
Nephritis
Neurodegenerative diseases
Obesity
Pancreatitis
Parkinson's disease
Preeclampsia
Psoriasis
Renal failure
Saliva
Schizophrenia
Scintigraphy
Semipermeable membranes
Septic shock
Spectrophotometry
Stroke
Synovial fluid
Systemic lupus erythematosus
TLC (thin layer chromatography)
Tear (ocular fluid)
Toxic shock syndrome
Tumors (animal)
Ulcer
Urine analysis
Urticaria
Uveitis
Vasculitis
(nitric oxide detection in fluid media using semipermeable membrane bags contg. nitric oxide-trapping agents)

IT Hemoglobins
Myoglobins
Nitrones
Peroxides, biological studies
Porphyrins
Thiols (organic), biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nitric oxide-trapping agent; nitric oxide detection in fluid media using semipermeable membrane bags contg. nitric oxide-trapping agents)

L55 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:12257 HCAPLUS
DOCUMENT NUMBER: 128:86088
TITLE: Changes in adenine nucleotides and lipid hydroperoxides during normothermic cardiopulmonary bypass in a porcine model of type II non-heart-beating donor
AUTHOR(S): Arias-Diaz, J.; Alvarez, J.; Gomez, M.; del Barrio, R.; Garcia-Carreras, C.; Gonzalez, P.; Balibrea, J. L.
CORPORATE SOURCE: Centro Investigacion, Hospital Clinico San Carlos, Univ. Complutense, Madrid, Spain
SOURCE: Transplant. Proc. (1997), 29(8), 3486-3487

CODEN: TRPPA8; ISSN: 0041-1345
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In this study the authors examd. the effect of a period of warm cardiopulmonary bypass on liver and kidney tissue energy levels and oxidative damage using a porcine exptl. model of type II non-heart-beating donors. Adenine nucleotides, lipid hydroperoxides, and reduced glutathione content in pig liver and kidney before and after exsanguination, resuscitation, and warm and cold cardiopulmonary bypass were detd.
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 14
ST adenine lipid hydroperoxide **organ preservation** **transplantation**
IT Kidney
Liver
Liver **transplant**
Organ preservation
Renal **transplant**
(adenine nucleotides, lipid hydroperoxides, and reduced glutathione content in pig liver and kidney before and after exsanguination, resuscitation, and warm and cold cardiopulmonary bypass)
IT Lipid **peroxides**
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(lipid hydroperoxides; adenine nucleotides, lipid hydroperoxides, and reduced glutathione content in pig liver and kidney before and after exsanguination, resuscitation, and warm and cold cardiopulmonary bypass)

L55 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:527758 HCAPLUS
DOCUMENT NUMBER: 127:187869
TITLE: Composition for **tissues** to sustain viability and biological functions in surgery and **storage**
INVENTOR(S): Chen, Chung-ho; Chen, Sumi C.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 8 pp. Cont.-in-part of U.S. 5,298,487.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5654266	A	19970805	US 1994-218109	19940328
US 5298487	A	19940329	US 1992-833027	19920210
PRIORITY APPLN. INFO.:			US 1992-833027	19920210
			US 1989-346700	19890503

AB A compn. composing ketone bodies and/or precursors thereof and an aq. phosphate-buffered balanced salt soln. with citrate, HPO42-, and Ca2+ in a defined concn. ratio is useful as a rich energy source for isolated tissue and for peripheral tissues under surgery with concurrent suppression of lactic acid formation and accumulation in the cells. Methods, including a mechanism and an assocd. set of protocols, are provided for making the soln. without causing autoclave-elicited caramelization and pptn. in the manufg. process. The compn. may be used in ocular surgery, general

surgery, and topical application, storage, and rinsing of donor tissues prior to transplantation. Thus, an irrigating soln. contained Na DL-.beta.-hydroxybutyrate 1.51, KCl 0.75, NaCl 7.71, Na2HPO4.7H2O 0.67, NaH2PO4.H2O 0.07, Na citrate-2H2O 0.59, MgCl2.6H2O 0.24, and CaCl2 0.09 mg/mL (pH 7.3-7.4). The soln. was filtered, bottled, sealed under vacuum, and sterilized by autoclaving or by showers of superheated water at 121-123.degree. for 15-20 min and immediately cooled rapidly with showers of water or in water baths in 2 stages, first at 60.degree. and then at 4.degree., to prevent breakage of glass bottles. Glucose (5.5 mM) may be added to the soln. without eliciting autoclave-induced caramelization.

IC ICM A61K031-22
ICS A61K038-00

NCL 514002000

CC 9-11 (Biochemical Methods)

ST **tissue preservative** ketone body citrate; phosphate buffer **tissue** irrigation soln; **transplant** nutrient soln hydroxybutyrate; isotonic soln **tissue preservative**

IT Serum (blood)
(-derived factor; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Discoloration prevention
(browning; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Antibiotics
Autoclaving
Cornea (eye)
Creams (drug delivery systems)
Lotions (cosmetics)
Ointments (drug delivery systems)
Ophthalmic drug delivery systems
Organ preservation
Skin creams
Transplant (**organ**)
Wound healing promoters
(compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Ketone bodies
Polymers, biological studies
Steroids, biological studies
Vitamins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Solutions (drug delivery systems)
(for irrigation; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Solutions
(**hypertonic** solns.; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Solutions
(isotonic solns.; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Amino acids, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ketogenic; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Thickening agents
(polymers; compn. for **tissues** to sustain viability and biol.

functions in surgery and **storage**)

IT Browning (food)
(prevention; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT Drug delivery systems
(slow-release; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT 50-89-5, Thymidine, biological studies 50-99-7, D-Glucose, biological studies 56-87-1, L-Lysine, biological studies 58-96-8, Uridine 60-18-4, L-Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 63-91-2, L-Phenylalanine, biological studies 73-22-3, L-Tryptophan, biological studies 87-73-0, D-Glucaric acid 150-83-4, Sodium .beta.-hydroxybutyrate 526-95-4, Gluconic acid 685-73-4, D-Galacturonic acid 994-36-5 1986-14-7, D-Mannuronic acid 7440-70-2, Calcium, biological studies 7447-40-7, Potassium chloride, biological studies 7512-17-6, N-Acetylglucosamine 7558-79-4, Dibasic sodium phosphate 7558-80-7, Monobasic sodium phosphate 7647-14-5, Sodium chloride, biological studies 7786-30-3, Magnesium chloride, biological studies 9003-39-8, PVP 9004-54-0, Dextran, biological studies 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9067-32-7, Sodium hyaluronate 10043-52-4, Calcium chloride, biological studies 13613-65-5, Sodium D-.beta.-hydroxybutyrate 14066-19-4, Monohydrogen phosphate 14984-34-0 27248-32-4 75277-39-3, Sodium HEPES 127464-60-2, Vascular endothelial growth factor 127604-16-4
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

IT 50-21-5, Lactic acid, biological studies
RL: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(suppression of formation of; compn. for **tissues** to sustain viability and biol. functions in surgery and **storage**)

L55 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:447438 HCAPLUS
DOCUMENT NUMBER: 127:120230
TITLE: The time limitation of normothermic liver ischemia in dogs
AUTHOR(S): Sasaki, Mutsuo; Totsuka, Eishi; Takahashi, Katsuro; Umehara, Yutaka; Toyoki, Yoshikazu; Seino, Kageyoshi; Hakamada, Kenichi; Konn, Mitsuru
CORPORATE SOURCE: Sch. Med., Hirosaki Univ., Hirosaki, 036, Japan
SOURCE: Hirosaki Igaku (1997), 48(4), 225-233
CODEN: HIRIA6; ISSN: 0439-1721
PUBLISHER: Hirosaki Daigaku Igakubu
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We investigated the time limitation of normothermic liver ischemia in dogs. Normothermic liver ischemia was made by clamping the hepatoduodenal ligament under porto-systemic shunt. According to the ischemic time, the dogs were divided into two groups: 60 min groups(Group A, n = 10) and 90 min group (Group B, n = 10). In Group A, 8 of 10 dogs survived for 168 h after reperfusion, whereas all 10 dogs died within 72 h in Group B. Oxidn.-redn. ability was preserved and amino acids metab. in hepatocytes was maintained in Group A. Serum lipid peroxide level, which reflects the damage of hepatocellular membrane, increased after reperfusion in Group B. Electron microscopic study showed bleb-like projections on the parenchymal cell surface, disappearance of the microvilli and mitochondrial swelling in Group B, but not in Group A. The serum endotoxin was sustained at a

high level after reperfusion in Group B. These results indicate that the limitation of warm liver ischemic time in dogs is about 60 min. In more than 90 min, the hepatocytes fall into irreversible metabolic failure of glucose and amino acids due to the injury of plasma membrane, and to the loss of the ability of endotoxin detoxication.

CC 14-7 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 9, 13

IT Hepatic ischemia
Hepatocyte
Liver **transplant**
Microvillus
Organ preservation
Reperfusion injury
(time limitation of normothermic liver ischemia in dogs)

IT Amino acids, biological studies
Endotoxins
Ketones, biological studies
Lipid **peroxides**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(time limitation of normothermic liver ischemia in dogs)

L55 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:627240 HCAPLUS
DOCUMENT NUMBER: 125:269724
TITLE: Use of .alpha.-tocopherol emulsion for antioxidant protection of ischemic and preserved kidneys
AUTHOR(S): Kirpatovskii, V. I.; Nikiforova, N. V.; Kudryavtsev, Yu. V.; Nadtochii, O. N.
CORPORATE SOURCE: NII Urol., Moscow, Russia
SOURCE: Byull. Eksp. Biol. Med. (1996), 121(5), 499-502
CODEN: BEBMAE; ISSN: 0365-9615
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Ten min after i.v. injection of .alpha.-tocopherol emulsion into rats (10 mg/kg) the concn. of tocopherol in cortical layers of the kidney increased from 6.7 to 7.4 .mu.g/g. This was accompanied by a slower accumulation of malondialdehyde in cortical homogenates from intact and ischemic kidneys during ascorbate-induced lipid peroxidn. Preserving kidneys in Eurocollins soln. at 4.degree.C with addn. of .alpha.-tocopherol emulsion (10 mg/L) prevented lipid peroxidn. for 24-48 h.

CC 9-11 (Biochemical Methods)

IT Antioxidants
Organ preservation
(.alpha.-tocopherol emulsion for antioxidant protection of ischemic and **preserved** kidneys)

IT Lipids, biological studies
RL: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(**peroxides**, formation of; .alpha.-tocopherol emulsion for antioxidant protection of ischemic and preserved kidneys)

IT Kidney
(**transplant**, .alpha.-tocopherol emulsion for antioxidant protection of ischemic and preserved kidneys)

L55 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:232267 HCAPLUS
DOCUMENT NUMBER: 124:314129
TITLE: Role of neutrophils in lipid peroxidation at reperfusion in liver **transplantation**
AUTHOR(S): Terashima, T.; Ohkohchi, N.; Kanno, M.; Seya, K.;

Orii, T.; Satomi, S.; Taguchi, Y.; Mori, S.
CORPORATE SOURCE: School of Medicine, Tohoku University, Sendai, Japan
SOURCE: Transplant. Proc. (1996), 28(1), 324-6
CODEN: TRPPA8; ISSN: 0041-1345
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In this study the authors investigated the role of neutrophils as a source of superoxide in reperfused livers after cold preservation. The results suggest that neutrophils in the circulation may become attached to the sinusoid of the liver graft and cause lipid peroxidn. by generating superoxide at reperfusion. Prolongation of cold preservation time would deteriorate the reperfusion injury by neutrophils.
CC 14-7 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 9
ST neutrophil lipid peroxidn reperfusion liver **transplantation**
IT Neutrophil
Organ preservation
(role of neutrophils in lipid peroxidn. at reperfusion in liver **transplantation**)
IT **Transplant** and **Transplantation**
(allo-, liver; role of neutrophils in lipid peroxidn. at reperfusion in liver **transplantation**)
IT Liver
(**allotransplant**, role of neutrophils in lipid peroxidn. at reperfusion in liver **transplantation**)
IT Lipids, biological studies
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(**peroxides**, role of neutrophils in lipid peroxidn. at reperfusion in liver **transplantation**)
IT Perfusion
(re-, role of neutrophils in lipid peroxidn. at reperfusion in liver **transplantation**)

L55 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:231751 HCAPLUS
DOCUMENT NUMBER: 122:182581
TITLE: Desferal prevents against cell lysis induced by hydrogen **peroxide** to hypoxic hepatocytes: a role for free iron in hypoxia-mediated cellular injury
AUTHOR(S): Lefebvre, V.; Buc-Calderon, P.
CORPORATE SOURCE: Unite de Biochimie Toxicologique et Cancerologique, Departement des Sciences Pharmaceutiques, Universite Catholique de Louvain, Mounier 73, Brussels, 1200, Belg.
SOURCE: Chem.-Biol. Interact. (1995), 94(1), 37-48
CODEN: CBINA8; ISSN: 0009-2797
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Isolated hepatocytes incubated under hypoxic conditions were more sensitive to H2O2- mediated injury as compared to cells kept under aerobic conditions, but only for the highest H2O2 concn. tested (8 mM). At lower concns. (2 and 4 mM) cells were still able to detoxify H2O2 even under hypoxic conditions. Reoxygenation of hypoxic hepatocytes did not result in a cytolytic effect, whereas reoxygenation in the presence of H2O2 resulted in an enhanced cytotoxicity. The duration of previous hypoxia (before H2O2 addn.) did not affect the lytic effect induced by H2O2. Enzymic activities of both catalase and glutathione peroxidase were unchanged over 2 h of incubation under hypoxic conditions. Preincubation of hepatocytes in the presence of Desferal (5 mM) resulted in the

abolition of H2O2-mediated lytic effects. A role for free iron, released from intracellular stores and acting on H2O2 to yield reactive oxygen species is discussed.
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 14
ST desferal liver **transplantation** oxygen radical iron
IT Perfusion
(desferal in liver perfusion for prevention of hydrogen **peroxide**-mediated cell lysis during hypoxia)
IT Isotonic solutions
Organ preservation
Transplant and **Transplantation**
(desferal use in liver in situ perfusion for prevention of hydrogen **peroxide**-mediated cell lysis during hypoxia prior to removal for **transplantation**)
IT Hypoxia
(hydrogen **peroxide**-mediated lysis of hypoxic hepatocytes requires free iron and can be inhibited by desferal)
IT Reactive oxygen species
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(iron acting on hydrogen **peroxide** in formation of reactive oxygen species during hypoxia in liver)
IT Liver, disease
(ischemia, hydrogen **peroxide**-mediated lysis of hypoxic hepatocytes requires free iron and can be inhibited by desferal)
IT Liver
(**transplant**, desferal use in liver in situ perfusion for prevention of hydrogen **peroxide**-mediated cell lysis during hypoxia prior to removal for **transplantation**)
IT 7439-89-6, Iron, biological studies
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(desferal chelation of iron involved in hydrogen **peroxide** -mediated cell lysis during hypoxia in relation to prepn. of liver for **transplantation**)
IT 3352-57-6D, Hydroxyl, radical **7722-84-1**, Hydrogen **peroxide**, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(lysis of hypoxic hepatocytes mediated by hydrogen **peroxide** requires free iron and can be inhibited by desferal)
IT 138-14-7, Desferal
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use in liver in situ perfusion for prevention of hydrogen **peroxide**-mediated cell lysis during hypoxia prior to removal for **transplantation**)

L55 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:552311 HCAPLUS
DOCUMENT NUMBER: 121:152311
TITLE: **Preparation** and quality control of 211At-labeled and 125I-labeled monoclonal antibodies. Biodistribution in mice carrying human osteosarcoma **xenografts**
AUTHOR(S): Larsen, Roy H.; Hoff, Per; Alstad, Jorolf; Bruland, Oeyvind S.
CORPORATE SOURCE: Department of Chemistry, University of Oslo, Oslo, N-0315, Norway
SOURCE: J. Labelled Compd. Radiopharm. (1994), 34(8), 773-85
CODEN: JLCRD4; ISSN: 0362-4803
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two anti-osteosarcoma monoclonal antibodies (TP-3 IgG and TP-1 F(ab')2) were labeled with the .alpha.-particle emitting radionuclide 211At and, for comparison of stability, with 125I using the N-succinimidyl-3-(trimethylstannyl)benzoate intermediate. The quality of the final prepns. was measured with immunoreactivity analyses using intact osteosarcoma cells. Immunoreactivity was well retained with values in the range of 65% to 85% for 211At-labeled and 125I-labeled TP-3 IgG and approx. 60% for both 211At-labeled and 125I-labeled TP-1 F(ab)2. Tumor uptake and retention as well as normal tissue distribution in mice with osteosarcoma xenografts were measured. The uptake of the two radionuclides in tumor was similar, while there was a slight general increase in normal tissue activity at later points for the 211At-labeled MoAbs compared to the 125I-labeled MoAbs, probably caused by a minor release of free 211At from the MoAb prepns. The stable retention in tumor tissue demonstrated in this study indicates that 211At-labeled MoAbs may have potential in the treatment of tumors that allow a rapid uptake.

CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 14

ST osteosarcoma astatine 211 monoclonal antibody; **iodine** 125 monoclonal antibody osteosarcoma

IT Immunoglobulins
RL: SPN (Synthetic preparation); PREP (Preparation)
(G2a, monoclonal, iodo, labeled with **iodine** 125, prepn. and quality control and biodistribution of, in osteosarcoma)

IT Immunoglobulins
RL: SPN (Synthetic preparation); PREP (Preparation)
(G2b, monoclonal, iodo, labeled with **iodine**-125, prepn. and quality control and biodistribution of, in osteosarcoma)

IT Antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(monoclonal, iodo, labeled with **iodine**-125, prepn. and quality control and biodistribution of, in osteosarcoma)

IT Bone, neoplasm
(osteosarcoma, astatine-211- and **iodine**-125-labeled monoclonal antibodies biodistribution in)

IT 14158-31-7DP, **Iodine** 125, monoclonal antibodies labeled with, biological studies 15755-39-2DP, Astatine 211, monoclonal antibodies labeled with, biological studies
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and quality control and biodistribution of, in osteosarcoma)

L55 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:200485 HCAPLUS
DOCUMENT NUMBER: 120:200485
TITLE: Povidone-hydrogen **peroxide** for **preservation** of blood, **tissues** and biological fluids
INVENTOR(S): Shanbrom, Edward
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9400161	A1	19940106	WO 1993-US6096	19930625

W: CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 605690 A1 19940713 EP 1993-915475 19930625
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE
JP 06510798 T2 19941201 JP 1993-502599 19930625
PRIORITY APPLN. INFO.: US 1992-905344 19920629
WO 1993-US6096 19930625

AB Blood, blood products, body tissues, fluids, and cells are treated with PVP-H2O2 and then the oxidizing potential of H2O2 in the PVP-H2O2 is quenched to kill pathogenic microbes without destroying the utility of the tissues, fluids, and cells. An app. for this purpose is also disclosed.

IC ICM A61L002-18

CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 13

ST povidone hydrogen **peroxide** sterilization biol fluid; blood **preservative** PVP hydrogen **peroxide**; **tissue** implant povidone hydrogen **peroxide** disinfectant

IT Blood preservatives
(PVP-hydrogen **peroxide** as)

IT Bactericides, Disinfectants, and Antiseptics
(PVP-hydrogen **peroxide** as, for blood and biol. tissues and fluids)

IT Blood transfusion
(blood disinfection with PVP-hydrogen **peroxide** in)

IT Animal tissue
Blood plasma
Erythrocyte
(disinfection of, with PVP-hydrogen **peroxide**)

IT Sperm
(disinfection with PVP-hydrogen **peroxide** in, for artificial insemination)

IT Culture media
(for tissue, disinfection of, with PVP-hydrogen **peroxide**)

IT Insemination, artificial
(sperm-contg. compn. disinfection with PVP-hydrogen **peroxide** in)

IT **Transplant** and **Transplantation**
(tissues, disinfection of, with PVP-hydrogen **peroxide**)

IT Albumins, compounds
RL: BIOL (Biological study)
(reaction products, with **iodine**, blood and biol. tissues and fluids disinfection by PVP-hydrogen **peroxide** and)

IT 7553-56-2D, **Iodine**, reaction products with albumins
25655-41-8, Povidone-**iodine**
RL: USES (Uses)
(blood and biol. tissues and fluids disinfection by PVP-hydrogen **peroxide** and)

IT 9003-39-8, PVP
RL: USES (Uses)
(hydrogen **peroxide** quenching with, in biol. products disinfected with PVP-hydrogen **peroxide**)

L55 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:129082 HCAPLUS
DOCUMENT NUMBER: 120:129082
TITLE: Starch-**iodine**-**peroxide** **preservation** of blood, **tissues** and biological fluids
INVENTOR(S): Shanbrom, Edward
PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9400011	A1	19940106	WO 1993-US6130	19930625
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 605704	A1	19940713	EP 1993-916804	19930625
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 06511040	T2	19941208	JP 1993-502617	19930625

PRIORITY APPLN. INFO.: US 1992-905776 19920629
WO 1993-US6130 19930625

AB Blood, blood derivs., other body tissues, fluids, and cells intended for transfusion or transplantation are disinfected with starch-I2-H2O2 or other I2-binding starch-contg. compns. carrying germicidal I to kill pathogenic microbes without destroying the utility of the tissues, fluids, and cells. The oxidizing potential of I is subsequently quenched by redn., absorption, or solvent extn. (no data). App. for disinfection of fluids or tissues is described with the aid of schematic diagrams.

IC ICM A01N043-04
ICS C08B031-00; C08B033-00; C08B037-00; A61K007-04; A61K007-34; C12M001-12; C12M001-14
CC 9-11 (Biochemical Methods)
ST starch **iodine peroxide** blood disinfection; tissue disinfection starch **iodine peroxide**; cell disinfection starch **iodine peroxide**; body fluid disinfection starch **iodine peroxide**
IT Animal tissue culture
(disinfection of medium for, with hydrogen **peroxide-iodine**-starch complex)
IT **Transplant** and **Transplantation**
(disinfection of, with hydrogen **peroxide-iodine**-starch complex)
IT Blood preservation
(disinfection, with hydrogen **peroxide-iodine**-starch complex)
IT Reducing agents
Albumins, uses
RL: USES (Uses)
(hydrogen **peroxide-iodine**-starch complex inactivation with, in blood disinfection)
IT Bactericides, Disinfectants, and Antiseptics
(hydrogen **peroxide-iodine**-starch complex, for blood and tissues for transfusion and **transplantation**)
IT 7553-56-2D, **Iodine**, complexes with starch and hydrogen **peroxide** **7722-84-1D**, Hydrogen **peroxide**, complexes with **iodine** and starch 9005-25-8D, Starch, complexes with **iodine** and hydrogen **peroxide**
RL: BIOL (Biological study)
(body fluid and cell and tissue disinfection with)
IT 9003-39-8, PVP
RL: BIOL (Biological study)
(crosslinked, hydrogen **peroxide-iodine**-starch complex inactivation with, in blood disinfection)
IT 9005-25-8, Starch, uses

RL: USES (Uses)
(hydrogen **peroxide-iodine**-starch complex inactivation with, in blood disinfection)

L55 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:103345 HCAPLUS
DOCUMENT NUMBER: 120:103345
TITLE: Nonfibrogenic, alginate-coated **transplants**, process of manufacture and method of use thereof
INVENTOR(S): Dorian, Randel E.; Cochrum, Kent C.; Vreeland, Valerie
PATENT ASSIGNEE(S): University of California, USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9324077	A1	19931209	WO 1993-US5461	19930601
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5429821	A	19950704	US 1992-891564	19920529
AU 9344097	A1	19931230	AU 1993-44097	19930601
EP 642326	A1	19950315	EP 1993-914434	19930601
EP 642326	B1	20010905		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07507550	T2	19950824	JP 1993-500889	19930601
AT 205223	E	20010915	AT 1993-914434	19930601
US 5693514	A	19971202	US 1994-300053	19940902

PRIORITY APPLN. INFO.: US 1992-891564 A2 19920529
WO 1993-US5461 A 19930601

AB A tissue transplant comprises viable, physiol. active, tissue cells and has a nonfibrogenic coating of a divalent metal alginate. The coating has a sufficiently low permeability and a sufficiently large thickness to protect the tissue cells from host immunol. agents after transplantation, and is sufficiently permeable and thin to permit the diffusion of sufficient cell nutrients and cell products through the coating required for cell viability. The tissue cells may be e.g. pancreatic islet cells, neural cells, renal cortex cells, vascular endothelial cells, thyroid cells, adrenal cells, thymic cells, ovarian cells, or hepatic cells. The nonfibrogenic alginate is prepd. by treating a divalent metal ion chelating agent-contg. aq. alginate soln. with bleached activated carbon, followed by EtOH pptn. Prepn. of calcium alginate-coated dog pancreatic islets is described. When the coated islets were transplanted into mice were transplanted into diabetic mice, the mice became and remained euglycemic for >72 wk. Several mice returned to the diabetic state several wks after implantation; these mice were sacrificed and the coated islets examd. The alginate-coated islets were viable, free from fibrosis, and free from macrophage overgrowth (only 2-10 macrophages/coated islet capsule).

IC ICM A61F002-02
ICS A01N001-02; C12N011-04
CC 13-7 (Mammalian Biochemistry)
ST alginate coating tissue **transplant**; cell alginate coating **transplant**; islet Langerhans alginate coating **transplant**

; nonfibrogenic **transplant** alginate coating
IT Animal cell
(alginate coating for, for nonfibrogenic **transplant**)
IT Canidae
Rat
(alginate-coated islets of Langerhans of, for nonfibrogenic **transplant** in diabetic mouse)
IT Pancreatic islet of Langerhans
(alginate-coated, of canine or rat, for nonfibrogenic **transplant** in diabetic mouse)
IT Mouse
(diabetic, nonfibrogenic **transplant** of alginate-coated islets of Langerhans in)
IT Chelating agents
(in alginate compn. **prepn.** for coating of **tissue** or cell for nonfibrogenic **transplant**)
IT Diabetes mellitus
(nonfibrogenic **transplant** of alginate-coated islets of Langerhans in mouse with)
IT Adrenal gland
Ovary
(nonfibrogenic **transplant** of cells of, alginate coating for)
IT **Transplant** and **Transplantation**
(nonfibrogenic, alginate coating for cell or tissue for)
IT Kidney
(cortex, **transplant**, nonfibrogenic, alginate coating for)
IT Metals, biological studies
RL: BIOL (Biological study)
(divalent, in alginate compn. for coating of tissue or cell for nonfibrogenic **transplant**)
IT Blood vessel
(endothelium, nonfibrogenic **transplant** of cells of, alginate coating for)
IT Liver
Nerve
Thymus gland
Thyroid gland
(**transplant**, nonfibrogenic, alginate coating for)
IT 6814-36-4P, Mannuronic acid 15769-56-9P, Guluronic acid
RL: SPN (Synthetic preparation); PREP (Preparation)
(alginate high in, **prepn.** of, for nonfibrogenic coating for **transplant** of cell or **tissue**)
IT 64-17-5, Ethanol, uses
RL: BIOL (Biological study)
(as pptg. agent, in alginate compn. **prepn.** for coating of **tissue** or cell for nonfibrogenic **transplant**)
IT 7440-44-0, Carbon, uses
RL: BIOL (Biological study)
(bleached activated, in alginate compn. **prepn.** for coating of **tissue** or cell for nonfibrogenic **transplant**)
IT 7440-70-2, Calcium, biological studies
RL: BIOL (Biological study)
(in alginate compn. for coating of tissue or cell for nonfibrogenic **transplant**)
IT **7681-52-9**, Sodium **hypochlorite**
RL: BIOL (Biological study)
(in bleached activated carbon prepn. from activated charcoal, for nonfibrogenic alginate prepn.)
IT 9005-32-7D, Alginate, salts
RL: BIOL (Biological study)

(tissue or cell coated with, for nonfibrogenic **transplant**)

L55 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:49588 HCAPLUS
DOCUMENT NUMBER: 120:49588
TITLE: Method for processing and **preserving** collagen-based **tissues** for **transplantation**
INVENTOR(S): Livesey, Stephen A.; Del Campo, Anthony A.; Nag, Abhijit; Nichols, Ken B.; Griffey, Edward S.; Coleman, Christopher
PATENT ASSIGNEE(S): Lifecell Corp., USA
SOURCE: Can. Pat. Appl., 63 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2089336	AA	19930813	CA 1993-2089336	19930211
CA 2051092	AA	19920313	CA 1991-2051092	19910910
AU 9183797	A1	19920319	AU 1991-83797	19910910
AU 650045	B2	19940609		
EP 475409	A2	19920318	EP 1991-115480	19910912
EP 475409	A3	19930901		
EP 475409	B1	19980415		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 164981	E	19980515	AT 1991-115480	19910912
ES 2114868	T3	19980616	ES 1991-115480	19910912
JP 3210036	B2	20010917	JP 1991-233340	19910912
US 5336616	A	19940809	US 1993-4752	19930202
AU 9332934	A1	19930819	AU 1993-32934	19930210
AU 668703	B2	19960516		
EP 564786	A2	19931013	EP 1993-102264	19930212
EP 564786	A3	19940706		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 06261933	A2	19940920	JP 1993-47373	19930212
US 5364756	A	19941115	US 1993-18357	19930216
AU 9467405	A1	19940922	AU 1994-67405	19940713
AU 677845	B2	19970508		
US 5780295	A	19980714	US 1996-752740	19961114
US 6194136	B1	20010227	US 1998-114433	19980713

PRIORITY APPLN. INFO.:

US 1992-835138	A	19920212
US 1993-4752	A	19930202
US 1990-581584		19900912
US 1991-709504		19910603
US 1993-18357	A3	19930216
US 1994-291340	B1	19940817
US 1996-18357	A3	19960216
US 1996-752740	A3	19961114

AB A method for processing and preserving an acellular collagen-based tissue matrix for transplantation is disclosed. The method includes the steps of processing biol. tissues with a stabilizing soln. to reduce procurement damage; treatment with a processing soln. to remove cells; treatment with a cryoprotectant soln. followed by freezing, drying, storage, and rehydration under conditions that preclude functionally significant damage; and reconstitution with viable cells. Skin for transplantation was processed and stored.

IC ICM A01N001-00
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 13, 63
ST collagen **tissue preservation transplantation** ; skin **preservation transplantation**
IT Blood platelet
(adhesion of, inhibitors of, in processing and **preserving** collagen-based **tissues** for **transplantation**)
IT Hypoxia
(agents for inhibition of, in processing and **preserving** collagen-based **tissues** for **transplantation**)
IT Animal **tissue**
(collagen-based, processing and **preserving** methods and solns. for, for **transplantation**)
IT Antibiotics
Antioxidants
Blood platelet aggregation inhibitors
Crosslinking agents
Cryoprotectants
Detergents
Fungicides and Fungistats
Solvents
Stabilizing agents
Albumins, biological studies
Enzymes
Leupeptins
Salts, biological studies
RL: BIOL (Biological study)
(in processing and **preserving** collagen-based **tissues** for **transplantation**)
IT Mammal
(methods and solns. for processing and **preserving** collagen-based **tissues** of, for **transplantation**)
IT **Organ preservation**
(methods and solns. for, for collagen-based **tissues**, for **transplantation**)
IT Phospholipids, biological studies
RL: BIOL (Biological study)
(methylation inhibitors, in processing and **preserving** collagen-based **tissues** for **transplantation**)
IT Proteoglycans, biological studies
RL: BIOL (Biological study)
(oncotic agents, in processing and **preserving** collagen-based **tissues** for **transplantation**)
IT Artery
Blood vessel
Bone
Cartilage
Ligament
Nerve
Skin
Tendon
Vein
(processing and preserving methods and solns. for, for **transplantation**)
IT Collagens, biological studies
RL: BIOL (Biological study)
(**tissues** based on, processing and **preserving** methods and solns. for, for **transplantation**)
IT Named reagents and solutions

RL: BIOL (Biological study)
(Hanks', in processing and **preserving** collagen-based **tissues** for **transplantation**)

IT Adhesion
(bio-, of platelets, inhibitors of, in processing and **preserving** collagen-based **tissues** for **transplantation**)

IT Skin
(dermis, processing and preserving methods and solns. for, for **transplantation**)

IT Meninges
(dura mater, processing and preserving methods and solns. for, for **transplantation**)

IT Vein
(saphenous, processing and preserving methods and solns. for, for **transplantation**)

IT Muscle relaxants
(smooth, in processing and **preserving** collagen-based **tissues** for **transplantation**)

IT Heart
(valve, processing and preserving methods and solns. for, for **transplantation**)

IT 7439-89-6, Iron, biological studies 7440-70-2, Calcium, biological studies
RL: BIOL (Biological study)
(binding agents, in processing and **preserving** collagen-based **tissues** for **transplantation**)

IT 50-60-2, Phentolamine 50-70-4, Sorbitol, biological studies 50-78-2, Aspirin 50-81-7, Ascorbate, biological studies 52-90-4, Cysteine, biological studies 56-40-6, Glycine, biological studies 56-81-5, Glycerol, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 57-92-1, Streptomycin, biological studies 58-32-2, Dipyridamole 58-61-7, Adenosine, biological studies **59-01-8**, **Kanamycin** 59-02-9, .alpha.-Tocopherol 60-00-4, Ethylenediaminetetraacetic acid, biological studies 60-32-2, .epsilon.-Amino caproic acid 61-33-6, Penicillin, biological studies 67-42-5 67-68-5, DMSO, biological studies 69-65-8, Mannitol 69-72-7, Salicylic acid, biological studies 70-18-8, Glutathione, biological studies 71-00-1, Histidine, biological studies 71-44-3, Spermine 71-52-3, Bicarbonate, biological studies 75-12-7, Formamide, biological studies 99-20-7, Trehalose 111-30-8, Glutaraldehyde 117-89-5, Flurazine 127-07-1, Hydroxyurea 128-53-0, Ethylmaleimide 139-33-3, Disodium EDTA 147-85-3, Proline, biological studies 151-21-3, Sodium dodecyl sulfate, biological studies 154-21-2, Lincomycin 302-95-4, Sodium deoxycholate 315-30-0, Allopurinol 329-98-6, Phenylmethylsulfonyl fluoride 512-69-6, Raffinose 513-85-9, 2-3 Butanediol 544-63-8, Myristic acid, biological studies 768-94-5, Amantadine 1132-61-2, 4-Morpholinepropanesulfonic acid 1397-89-3, Amphotericin B 1400-61-9, Nystatin 1403-66-3, Gentamicin 1404-04-2, Neomycin 1404-90-6, Vancomycin 1405-20-5, Polymyxin B sulfate 1405-87-4, Bacitracin 1406-11-7, Polymyxin 1948-33-0, Tertiary butylhydroquinone 2609-46-3, Amiloride 4432-31-9, 4-Morpholineethanesulfonic acid 7365-45-9 7440-66-6, Zinc, biological studies 7632-05-5, Sodium phosphate 7647-14-5, Sodium chloride, biological studies 7683-59-2, Isoproterenol 7786-30-3, Magnesium chloride, biological studies 9001-05-2, Catalase 9001-48-3, Glutathione reductase 9001-54-1, Hyaluronidase 9002-07-7, Trypsin 9003-39-8, Polyvinylpyrrolidone 9004-54-0, Dextran, biological studies 9005-27-0, Hydroxyethyl starch 9005-49-6, Heparin, biological studies

9005-65-6, Polyoxyethylene sorbitan monooleate 9007-28-7, Chondroitin sulfate 9013-66-5, Glutathione peroxidase 9036-19-5 9054-89-1, Superoxide dismutase 9073-78-3, Thermolysin 9087-70-1, Aprotinin 12125-02-9, Ammonium chloride, biological studies 12408-02-5, Hydrogen ion, biological studies 14402-89-2, Sodium nitroprusside 16068-46-5, Potassium phosphate 21829-25-4, Nifedipine 24967-94-0, Dermatan sulfate 28822-58-4, Isobutylmethylxanthine 35121-78-9, Prostacyclin 35607-66-0, Cefoxitin 42613-33-2, Dispase II 60560-33-0, Pinacidil 75621-03-3, 3-([3-Cholamidopropyl]dimethylammonio)-1-propanesulfonate 78218-09-4, Dazoxiben 83652-28-2, Calcitonin gene-related peptide 84477-87-2, H7 152270-60-5
RL: BIOL (Biological study)
(in processing and **preserving** collagen-based **tissues** for **transplantation**)

IT 9001-92-7, Protease 9029-60-1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors, in processing and **preserving** collagen-based **tissues** for **transplantation**)

IT 56-65-5, Adenosine triphosphate, biological studies
RL: BIOL (Biological study)
(substrates of generation of, in processing and **preserving** collagen-based **tissues** for **transplantation**)

L55 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:600639 HCAPLUS
DOCUMENT NUMBER: 119:200639
TITLE: Albumin-**iodine preservation** of blood, **tissues** and biological fluids
INVENTOR(S): Shanbrom, Edward
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9317693	A1	19930916	WO 1993-US1453	19930219
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9337242	A1	19931005	AU 1993-37242	19930219
EP 591483	A1	19940413	EP 1993-906060	19930219
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 06511013	T2	19941208	JP 1993-515699	19930219

PRIORITY APPLN. INFO.: US 1992-844241 19920302
WO 1993-US1453 19930219

AB Blood for transfusion, sperm for artificial insemination, body fluids, and transplants are disinfected with an albumin-I complex (no data). An app. for disinfection of a liq. contains a 1st bed of insol. albumin-I complex and a 2nd bed of insol. PVP, albumin, or other I absorbent and/or I-reducing agent to remove residual I released from the complex.

IC ICM A61K033-18
CC 13-5 (Mammalian Biochemistry)
Section cross-reference(s): 63
ST albumin **iodine** complex blood disinfection; sperm albumin **iodine** complex disinfection; **transplant** albumin **iodine** complex disinfection
IT Bactericides, Disinfectants, and Antiseptics

Blood preservatives
(albumin-**iodine** complex)
IT Sterilization and Disinfection
(app., for liqs., albumin-**iodine** complex bed in)
IT **Transplant** and **Transplantation**
(disinfection of, with albumin-**iodine** complex)
IT Reducing agents
(in disinfection app. contg. albumin-**iodine** complex, for liqs.)
IT Pharmaceutical dosage forms
(resealed erythrocyte ghosts, disinfection of, with albumin-**iodine** complex)
IT Sperm preservation
(with albumin-**iodine** complex)
IT Erythrocyte
(ghost, disinfection of resealed, with albumin-**iodine** complex)
IT 7553-56-2D, **Iodine**, albumin complexes
RL: BIOL (Biological study)
(blood and sperm and tissue disinfection with)
IT **7722-84-1D**, Hydrogen **peroxide**, reaction products with PVP 9003-39-8, PVP 9003-39-8D, PVP, reaction products with hydrogen **peroxide**
RL: BIOL (Biological study)
(in disinfection app. contg. albumin-**iodine** complex, for liqs.)

L55 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:467465 HCAPLUS
DOCUMENT NUMBER: 117:67465
TITLE: An experimental comparison between isotonic saline solution, Euro-Collins, and a flush solution with mannitol in the prevention of renal damage due to warm ischemia
AUTHOR(S): Torras, J.; Bordalba, J. R.; Seron, D.; Carrera, M.; Castelao, A. M.; Poveda, R.; Alsina, J.; Grino, J.
CORPORATE SOURCE: Serv. Nefrol., Urol. Anat. Patol., Hosp. Bellvitge, L'Hospitalet, 08097, Spain
SOURCE: Transplant. Proc. (1992), 24(1), 54-5
CODEN: TRPPA8; ISSN: 0041-1345
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Posttransplant acute tubular necrosis (ATN) exerts a neg. influence on allograft survival. An ATN rate as high as 30% using Euro-Collins has been reported and some investigators noted that this soln. may lose its protective ability above 15.degree.. Recently the authors have reported good clin. results using a flush soln. with mannitol in the prevention of ATN. Mannitol is an impermeable solute that is not metabolized in the body and is also a potent scavenger of hydroxyl radicals. Furthermore, its protective effect in exptl. acute renal failure has been proved. The ability of a hypertonic flush soln. with mannitol to prevent organ damage due to renal warm ischemia (RWI) was studied and compared with Euro-Collins and an extracellular soln. This exptl. model shows that Euro-Collins loses part of its preservation capacity during RWI. In contrast, M-400 is more effective than Euro-Collins in renal preservation during RWI.
CC 13-7 (Mammalian Biochemistry)
Section cross-reference(s): 1
IT **Transplant** and **Transplantation**
(of kidney, warm ischemia damage to, prevention of, by Euro-Collins vs.

mannitol flush soln.)
IT **Organ preservation**
(with Euro-Collins vs. mannitol flush soln., of kidney grafts damaged by warm ischemia)
IT 69-65-8, Mannitol
RL: BIOL (Biological study)
(**hypertonic** flush soln. with, warm ischemia-induced kidney damage prevention with Euro-Collins in comparison with)

L55 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:251691 HCAPLUS
DOCUMENT NUMBER: 116:251691
TITLE: **Preservation** and disinfection of blood, **tissues**, and biological fluids with povidone-**iodine**
INVENTOR(S): Shanbrom, Edward
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9204031	A1	19920319	WO 1991-US6240	19910903
W: AU, CA, FI, JP, NO, SU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2072871	AA	19920305	CA 1991-2072871	19910903
AU 9185037	A1	19920330	AU 1991-85037	19910903
AU 644216	B2	19931202		
EP 500893	A1	19920902	EP 1991-916527	19910903
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05502183	T2	19930422	JP 1991-515148	19910903
NO 9201756	A	19920625	NO 1992-1756	19920504
PRIORITY APPLN. INFO.:			US 1990-577204	19900904
			WO 1991-US6240	19910903

AB Body fluids, tissues, and cells are preserved and disinfected with povidone-I. The povidone-I kills pathogenic microbes without destroying the utility of the tissues, fluids, and cells. A drug delivery material comprises blood cell conc., wherein the cell walls of the cells have been opened by treatment with 1-5 wt.% povidone-I, a drug has been introduced into the cells through passages produced by the treatment, and the cell walls have been sealed by heating the cells to 42-48.degree.. A sampling tube for collecting body fluids to be tested contains povidone-I to inactivate or destroy infective pathogenic microorganisms. A blood substitute consists of an aq. soln. of povidone, povidone-I, and Hb. Vesicular stomatitis virus was killed in whole blood and washed red blood cells by treatment with povidone-I. Povidone alone showed virucidal activity.
IC ICM A61K031-79
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 13, 63
ST povidone **iodine preservative** disinfectant; blood **preservative** disinfectant povidone **iodine**; body fluid **preservation** disinfection; **tissue preservation** disinfection povidone **iodine**; substitute blood Hb povidone **iodine**
IT **Transplant** and **Transplantation**

(biol. material for, povidone-**iodine** disinfection and preservation of)
IT Animal cell
Animal **tissue**
Body fluid
Sperm
(disinfection and **preservation** of, povidone-**iodine** for)
IT Blood
Blood corpuscle
Erythrocyte
(disinfection of, povidone-**iodine** for)
IT Preservatives
(for viable cells, povidone-**iodine** as disinfectant and)
IT Sterilization and Disinfection
(of biol. material for **transplant** and transfusion, with povidone-**iodine**)
IT Pharmaceutical dosage forms
(of blood cells contg. drug introduced by povidone-**iodine** treatment)
IT Analysis
(of body fluids, pathogenic microorganisms inactivation with povidone-**iodine** in sampling tube in)
IT Biological transport
(of drug into blood cells, povidone-**iodine** in, for drug delivery material)
IT Blood substitutes and Plasma expanders
(povidone and povidone-**iodine** and Hb as)
IT Bactericides, Disinfectants, and Antiseptics
(povidone-**iodine** as)
IT Blood preservatives
(povidone-**iodine** as disinfectant and)
IT Virucides and Virustats
(povidone-**iodine** as, for blood and red blood cell disinfection and preservation)
IT Blood transfusion
(povidone-**iodine** disinfection and preservation of blood cells for)
IT Fertilization
(sperm for, povidone-**iodine** disinfection and preservation of)
IT Blood plasma
(vesicular stomatitis virus in, povidone-**iodine** killing of)
IT Microorganism
(pathogenic, inactivation of, in body fluid sample, with povidone-**iodine** in sampling tube)
IT Sampling apparatus
(tubes, povidone-**iodine** in, for inactivating pathogenic microorganisms in body fluid sample for anal.)
IT Virus, animal
(vesicular stomatitis, in blood and red blood cells, povidone-**iodine** killing of)
IT **25655-41-8**, Povidone-**iodine**
RL: BIOL (Biological study)
(as disinfectant and **preservative** for body fluid and **tissues** and cells)

L55 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:126048 HCAPLUS
DOCUMENT NUMBER: 116:126048
TITLE: Role of free radicals and energy synthesis on primary

graft nonfunction in liver **transplantation**
AUTHOR(S): Ohkohchi, N.; Sakurada, M.; Endoh, T.; Koyamada, M.; Katoh, H.; Koizumi, M.; Orii, T.; Satomi, S.; Taguchi, Y.; Mori, S.
CORPORATE SOURCE: Sch. Med., Tohoku Univ., Sendai, Japan
SOURCE: Transplant. Proc. (1991), 23(5), 2416-19
CODEN: TRPPA8; ISSN: 0041-1345
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mitochondrial free radical formation and impaired oxidative phosphorylation in liver during cold storage and after transplantation were examd. Evidently, ATP formation plays an important role in graft survival. Also, radical formation and lipid peroxide levels in liver mitochondria are increased during cold storage.
CC 14-7 (Mammalian Pathological Biochemistry)
ST liver preservation **transplantation** mitochondria function; ATP formation liver **transplantation**; radical formation liver **transplantation**; lipid peroxidn liver **transplantation**
IT Radicals, biological studies
RL: FORM (Formation, nonpreparative)
(formation of, by mitochondria of liver in preservation and **transplantation**)
IT Mitochondria
(free radical and lipid **peroxide** formation in, of liver in preservation and **transplantation**)
IT **Transplant** and **Transplantation**
(of liver, ATP and free radical and lipid **peroxide** formation by mitochondria of liver in)
IT **Organ preservation**
(of liver, ATP and free radical formation and lipid peroxidn. by mitochondria in)
IT Phosphorylation, biological
(oxidative, of mitochondria, of liver in preservation and **transplantation**)
IT Lipids, compounds
RL: FORM (Formation, nonpreparative)
(**peroxides**, formation of, in mitochondria of liver in preservation and **transplantation**)
IT Liver, metabolism
(**transplant**, ATP and free radicals and lipid **peroxides** formation by mitochondria of, preservation and **transplant** survival in relation to)
IT 56-65-5, 5'-ATP, biological studies
RL: FORM (Formation, nonpreparative)
(formation of, in mitochondria of liver in preservation and **transplantation**)

L55 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:124259 HCAPLUS
DOCUMENT NUMBER: 116:124259
TITLE: Sources of reactive oxygen species during multiple **organ** removal, **preservation**, and liver **transplantation**
AUTHOR(S): Schumacher, I.; Zimmermann, U.; Wuschek, M.; Gaebel, W.; Hauss, J.; Spiegel, H. U.; Kranz, D.; Domagk, A.; Lorenz, D.
CORPORATE SOURCE: Surg. Clin., Greifswald Univ., Greifswald, Germany
SOURCE: Transplant. Proc. (1991), 23(5), 2354-5
CODEN: TRPPA8; ISSN: 0041-1345
DOCUMENT TYPE: Journal

LANGUAGE: English
AB The liver, pancreas, and kidneys were removed from dogs, perfused, preserved for 3-4 h in various solns., and postperfused. O1- and H2O2 were detd. in the plasma and perfusate during these procedures. The livers were then transplanted into recipient dogs. The data are tabulated and discussed with resp. to behavior of the reactive O species and other substances present.
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 14
ST **organ preservation** oxygen species; liver **transplant** oxygen species
IT Reactive oxygen species
RL: BIOL (Biological study)
(in **organ** removal and **preservation** and **transplantation**)
IT **Transplant** and **Transplantation**
(of liver, reactive oxygen species in)
IT **Organ preservation**
(reactive oxygen species in)
IT **7722-84-1**, Hydrogen **peroxide**, biological studies
7782-44-7D, Oxygen, radicals 11062-77-4, Superoxide
RL: BIOL (Biological study)
(in **organ** removal and **preservation** and **transplantation**)

L55 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:182953 HCAPLUS
DOCUMENT NUMBER: 114:182953
TITLE: Effect of polyethylene glycol on lipid peroxidation in cold-stored rat hepatocytes
AUTHOR(S): Mack, J. E.; Kerr, J. A.; Vreugdenhil, P. K.; Belzer, F. O.; Southard, J. H.
CORPORATE SOURCE: Dep. Surg., Univ. Wisconsin, Madison, WI, 53792, USA
SOURCE: Cryobiology (1991), 28(1), 1-7
CODEN: CRYBAS; ISSN: 0011-2240
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Methods to suppress generation of O free radicals or suppression of lipid peroxidn. may lead to improved methods of organ preservation. In this study the authors detd. how cold storage of rat hepatocytes affected lipid peroxidn. by measuring thiobarbituric acid reactive products (malondialdehyde, MDA). Hepatocytes were stored in media .+-. GSH or .+-. polyethylene glycol (PEG) for <96 h and rewarmed (resuspended in a physiol. saline soln. and incubated at 37.degree. under an atm. of O) after each day of storage. Hepatocytes rewarmed after storage in solns. not contg. PEG or GSH showed a nearly linear increase in MDA prodn. with time of storage and contained 1.618 nmol MDA/mg protein after 96 h. When the storage soln. contained PEG and GSH there was no significant increase in MDA prodn. after <72 h of storage and at 96 h MDA was 0.827 nmol/mg protein. When freshly isolated hepatocytes were incubated (37.degree.) in the presence of Fe (160 .mu.M) MDA formation was maximally stimulated (3.314 nmol/mg protein). When hepatocytes were stored in the presence of PEG there was a decrease in the capability of Fe to maximally stimulate lipid peroxidn. The decrease in Fe-stimulated MDA prodn. was dependent upon the time of storage in PEG (1.773 nmol/mg protein at 24 h and 0.752 nmol/mg protein at 48 h). In the absence of PEG, Fe-stimulated MDA formation was nearly maximal at all times of storage. These results show that lipid peroxidn. is stimulated by cold storage of hepatocytes. Inclusion of PEG in the storage medium suppressed lipid peroxidn. suggesting that PEG is accumulated, in a time-dependent manner, by

hepatocytes (either into the plasma membrane or into the cell cytosol) and either scavenges O free radicals or alters the availability of lipids to these radicals. PEG may be a useful additive to organ preservation solns.
CC 13-7 (Mammalian Biochemistry)
Section cross-reference(s): 14
ST polyethylene glycol lipid peroxidn liver **preservation**; **organ transplantation** lipid peroxidn polyethylene glycol
IT **Organ**
(**preservation** of, polyethylene glycol inhibition of lipid peroxidn. in relation to)
IT **Transplant** and **Transplantation**, animal
(allo-, of organs, polyethylene glycol inhibition of lipid peroxidn. in relation to)
IT **Peroxides**, biological studies
RL: FORM (Formation, nonpreparative)
(lipid, formation of, polyethylene glycol inhibition of, in liver preservation model)

L55 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:550154 HCAPLUS
DOCUMENT NUMBER: 111:150154
TITLE: Method of **preparing** bone **xenografts**
INVENTOR(S): Savel'ev, V. I.; Alinagiev, D. F.
PATENT ASSIGNEE(S): Leningrad Scientific-Research Institute of Traumatology and Orthopedics, USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1989, (11), 14. CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1466728	A1	19890323	SU 1986-4166194	19861110

AB Bone xenografts are prepd. by extg., defatting, and sterilizing. A rapid prepn. of transplants and antimicrobial properties are ensured by treating the bone daily with a mixt. of perhydrol and Me2CO in a 3:1 ratio on the 1st, 1:1 on the 2nd, and 1:3 on the 3rd day, and an antiseptic is added to the last portion.
IC ICM A61L009-00
ICS A61L027-00
CC 9-11 (Biochemical Methods)
ST bone **transplant** perhydrol acetone antiseptic
IT Bactericides, Disinfectants, and Antiseptics
(bone **transplant** treatment with)
IT **Transplant** and **Transplantation**, animal
(of bone, acetone and antiseptic and perhydrol treatment of)
IT Bone
(**transplant**, acetone and antiseptic and perhydrol treatment of)
IT 67-64-1, Acetone, uses and miscellaneous **7722-84-1**, Perhydrol, uses and miscellaneous
RL: USES (Uses)
(bone **transplant** treatment with)

L55 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:5631 HCAPLUS
DOCUMENT NUMBER: 110:5631
TITLE: The influence of **storage** period and

reperfusion in pancreas **transplantation** using lipoperoxides as a **tissue** damage marker
AUTHOR(S): Targarona, E. M.; Fernandez-Cruz, L.; Casas, A.; Colomer, J.; Pi, F.; Saenz, A.; Hotter, G.; Puig-Parellada, P.; Rosello, J.; Gorey, T. F.
CORPORATE SOURCE: Dep. Surg., Univ. Barcelona, Barcelona, Spain
SOURCE: Transplant. Proc. (1988), 20(5), 1016-18
CODEN: TRPPA8; ISSN: 0041-1345
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Streptozotocin-diabetic rats received a pancreas (PTx) or pancreatoduodenal (PDTx) isograft from normal Lewis rats. The success rate of PDTx and PTx isografts varied after different times of cold storage. Grafts (PDTx and PTx) with 15 min cold storage functioned (serum glucose <150 mg/dL) in 100% of the cases. The groups with PDTx isografts with cold storage for 6 and 12 h functioned, resp., 7/8 and 6/8. The groups with PTx functioned 7/8 and 5/8 after 6 and 12 h cold storage. Lipoperoxide (LPX) levels in plasma increased progressively in the groups with PDTx isografts with prolonged time of cold storage. However, in the groups with PTx isografts, these values decreased slightly as long as the time of preservation advanced, but the differences were not significant. In the group of PTx, LPX in pancreatic tissue after reperfusion decreased progressively with the prolongation of cold storage. The difference was significant between the groups with 15 min and 12 h of cold storage. It is suggested that preservation injury in pancreas transplantation is probably not due to O free radicals.

CC 14-8 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 9

ST diabetes lipoperoxide pancreas **transplant** storage reperfusion

IT **Transplant** and **Transplantation**, animal
(of pancreas, storage- and reperfusion-mediated injury of, lipoperoxides as markers of)

IT Diabetes mellitus
(treatment of, with pancreas **transplant**, lipoperoxides as markers of storage and reperfusion injury in relation to)

IT Intestine
(duodenum, **transplant**, pancreas and, lipoperoxides as markers of **storage**- and reperfusion-mediated **tissue** injury of)

IT **Peroxides**, biological studies
RL: BIOL (Biological study)
(lipid, of blood plasma and pancreas **transplant**, as **storage**- and reperfusion-mediated **tissue** injury marker)

IT Lipids, biological studies
RL: BIOL (Biological study)
(peroxy, of blood plasma and pancreas **transplant**, as **storage**- and reperfusion-mediated **tissue** injury marker)

IT Pancreas
(**transplant**, lipoperoxides as markers of **storage**- and reperfusion-mediated **tissue** injury of)

IT 7782-44-7D, Oxygen, radicals
RL: BIOL (Biological study)
(pancreas **transplant** injury marker in relation to)

L55 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1988:471089 HCAPLUS
DOCUMENT NUMBER: 109:71089

TITLE: Adenine nucleotide **tissue** concentrations and liver **allograft** viability after cold **preservation** and warm ischemia

AUTHOR(S): Harvey, P. R. C.; Iu, S.; McKeown, C. M. B.; Petrunka, C. N.; Ilson, R. G.; Strasberg, S. M.

CORPORATE SOURCE: Res. Inst., Mount Sinai Hosp. Univ., Toronto, ON, M5G 1X5, Can.

SOURCE: Transplantation (1988), 45(6), 1016-20
CODEN: TRPLAU; ISSN: 0041-1337

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The relation between adenine nucleotide liver concns. and the viability of liver allografts after cold preservation and warm ischemia was studied in rats. Livers were excised and stored for 4 h at 4.degree. or 1 h at 37.degree. (viable if transplanted) or for 8 h at 4.degree. or 2 h at 37.degree. (not viable if transplanted) in 0.9% NaCl and 2 mM CaCl2. Adenine nucleotide, malondialdehyde, and glutathione concns. were measured in liver biopsies at the end of the storage periods and in control livers. During cold preservation, ATP concns. declined, but the degrdn. was largely halted at AMP, and this was independent of the length of storage or viability of the allograft. Thus, graft failure is not due to lack of intramitochondrial substrate (AMP) for rephosphorylation to ATP, nor is it likely that provision of such substrate will be helpful. In warm ischemia, ATP degrdn. to inosine, hypoxanthine, and xanthine occurs and nonviable livers developed higher levels of xanthine than viable ones. Xanthine concns. provided 100% discrimination between viable and nonviable warm preserved livers. Malondialdehyde concns. were also greater in the warm preserved nonviable livers, indicating that some lipid peroxidn. may occur even before reperfusion of allografts. Glutathione concns. were similar in all exptl. groups.

CC 13-6 (Mammalian Biochemistry)
Section cross-reference(s): 14

ST liver **transplant** viability adenine nucleotide glutathione; lipid peroxidn liver **transplant** viability

IT Peroxidation
(of lipids, in liver **transplant**, storage temp. and time effect on, glutathione and viability in relation to)

IT **Transplant** and **Transplantation**, animal
(of liver, viability of, storage temp. and time effect on, adenine nucleotides and glutathione and lipid peroxidn. in relation to)

IT Lipids, biological studies
RL: BIOL (Biological study)
(peroxidn. of, in liver **transplant**, storage temp. and time effect on, glutathione and viability in relation to)

IT Liver, composition
(**transplant**, adenine nucleotides and glutathione and lipid **peroxides** of, storage temp. and time effect on, viability in relation to)

IT 73-24-5D, Adenine, nucleotides
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(metab. of, in liver **transplant**, storage temp. and time effect on, viability in relation to)

IT 56-65-5, 5'-ATP, biological studies 58-61-7, Adenosine, biological studies 58-63-9, Inosine 58-64-0, 5'-ADP, biological studies 61-19-8, 5'-AMP, biological studies 68-94-0, Hypoxanthine 69-89-6, Xanthine 70-18-8, Glutathione, biological studies
RL: BIOL (Biological study)
(of liver **transplant**, storage temp. and time effect on, viability in relation to)

L55 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1987:511878 HCAPLUS
DOCUMENT NUMBER: 107:111878
TITLE: Radioimmunodetection of human glioma **xenografts** by monoclonal antibody to epidermal growth factor receptor
AUTHOR(S): Takahashi, Hiroshi; Herlyn, Dorothee; Atkinson, Barbara; Powe, John; Rodeck, Ulrich; Alavi, Abass; Bruce, Derek A.; Koprowski, Hilary
CORPORATE SOURCE: Wistar Inst. Anat. Biol., Philadelphia, PA, 19104, USA
SOURCE: Cancer Res. (1987), 47(14), 3847-50
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Murine monoclonal IgG2a (I) 425 specifically detects epidermal growth factor receptor, which is expressed on human gliomas and tumors of other tissue origin but rarely on normal brain tissues, and not at all on bone marrow and peripheral blood cells. 131I-labeled F(ab')2 fragments of I injected into nude mice grafted with U-87 MG glioma cells preferentially localized in tumor tissue compared to normal mouse tissues, as detd. by differential tissue counting of radioactivity. The mean tumor-to-tissue ratios of radioactivity ranged between 8.2 (blood) and 55.8 (muscle) at 2 days after the injection of 15 .mu.Ci of 131I-I F(ab')2/mouse. Radiolabeled fragments of an anti-hepatitis virus IgG2a monoclonal antibody did not localize in tumors. The localization index derived from the ratios of specific antibody to indifferent antibody in tumor tissue relative to blood was 9.94 at 2 days following I injection. Labeled I did not localize in a xenograft of colorectal cancer tumor, which does not express the epidermal growth factor receptor. Tumors could be located by whole-body .gamma.-scintigraphy without background subtraction following the injection of 100 .mu.Ci of radiolabeled I F(ab')2 fragments. The data suggest that I is a likely candidate for clin. diagnostic and radioimmunotherapy trials.

CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 14, 15

ST immunoscintigraphy glioma radioiodinated monoclonal antibody; epidermal growth factor receptor IgG2a; **iodine** 125 monoclonal IgG2a scintigraphy

IT Receptors
RL: BIOL (Biological study)
(for epidermal growth factor, **iodine**-125-labeled monoclonal IgG2a to, scintigraphy with, of human glioma **xenografts**)

IT Immunoglobulins
RL: SPN (Synthetic preparation); PREP (Preparation)
(G2a, monoclonal, iodo, labeled with **iodine**-125, to epidermal growth factor receptor, **prepn.** and metab. of and scintigraphy of human glioma **xenografts** with)

IT Scintigraphy
(immuno-, of glioma **xenograft** of human, with **iodine** -125-labeled monoclonal IgG2a to epidermal growth factor receptor)

IT 62229-50-9, Epidermal growth factor
RL: BIOL (Biological study)
(receptors for, **iodine**-125-labeled monoclonal IgG2a to, scintigraphy with, of human glioma **xenografts**)

IT 14158-31-7D, **Iodine**-125, monoclonal IgG2a to epidermal growth factor receptor labeled with
RL: BIOL (Biological study)
(scintigraphy with, of human glioma **xenografts**)

L55 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1984:135451 HCAPLUS
DOCUMENT NUMBER: 100:135451
TITLE: Sterilization of biological **transplants** with simultaneous preservation
INVENTOR(S): Savel'ev, V. I.; Plotnikova, V. A.; Ivankin, D. E.; Kravtsov, V. A.
PATENT ASSIGNEE(S): Leningrad Scientific-Research Institute of Traumatology and Orthopedics, USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1983, (47), 17-18.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1061783	A1	19831223	SU 1981-3363802	19811225

AB The time required for sterilization of biol. transplants with 0.1% formalin soln. may be decreased and the simultaneous preservation can be extended by processing the transplants addnl. with a mixt. contg. monomycin or kanamycin 0.050-0.075, DMSO 0.035-0.050, prednisolone 0.006-0.008 wt.%, and phosphate buffer at 37-40.degree. for 1.5-2.0 h and then at 2-5.degree. for >20 h.
IC A01N001-02
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 13
ST **organ transplant** sterilization **preservation**
IT Sterilization and Disinfection
(of organs during **transplantation**, compn. for)
IT **Transplant** and **Transplantation**, animal
(of **organs**, **preservation** and sterilization of, compn. for)
IT **Organ**
(**preservation** and sterilization of, for **transplantation**, compn. for)
IT 50-24-8 67-68-5, biological studies **8063-07-8** 54597-56-7
RL: ANST (Analytical study)
(in **preservation** and sterilization compn. for **organ transplant**)

=> d .ca 156 1-13

L56 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:167820 HCAPLUS
DOCUMENT NUMBER: 134:198151
TITLE: Mineralized collagen membrane and method of making same
INVENTOR(S): Liu, Sung-Tsuen
PATENT ASSIGNEE(S): Ceramedical, Inc., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001015711	A1	20010308	WO 2000-US22521	20000816
W: CA, CN, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6300315	B1	20011009	US 1999-385238	19990828

PRIORITY APPLN. INFO.: US 1999-385238 A 19990828

AB A mineralized collagen membrane is provided that is useful for such medical applications as a barrier for guided tissue regeneration. The mineralized collagen membrane comprises a substantially homogeneous mineralized collagen composite consisting essentially of about 25-90% by wt. of a collagen component and about 10-75% by wt. of a calcium phosphate mineral component pptd. from a collagen slurry by a sol. calcium ion-contg. soln. and a sol. phosphate ion-contg. soln., the calcium phosphate mineral component having a mole ratio of calcium to phosphate in the range of about 1.0 to about 2.0. For example, the mineralized collagen membrane contg. 40% collagen and 60% calcium phosphate was prepd. by mixing solns. contg. 1 g of type 1 collagen, 2.2 g of CaCl2, and 2.0 g (NH4)2HPO4; the resulting mineralized collagen slurry was filtered to form a thin mineralized collagen membrane sheet.

IC ICM A61K033-06
ICS A61K033-10; A61K038-01; A61K038-02; A61K035-32

CC 63-8 (Pharmaceuticals)

IT **Transplant** and **Transplantation**
(bone; prepn. of mineralized collagen membrane for medical applications)

IT **Antibiotics**
Drug delivery systems
(carriers; prepn. of mineralized collagen membrane for medical applications)

IT Animal **tissue**
(regeneration; **prepn**. of mineralized collagen membrane for medical applications)

IT Animal **tissue**
(soft, slaps; **prepn**. of mineralized collagen membrane for medical applications)

IT Bone
(**transplant**; prepn. of mineralized collagen membrane for medical applications)

REFERENCE COUNT: 3
REFERENCE(S): (1) Liu; US 5320844 A 1994
(2) Piez; US 5425770 A 1995
(3) Silver; US 5532217 A 1996 HCAPLUS

L56 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:64267 HCAPLUS
DOCUMENT NUMBER: 134:112666
TITLE: Method and kit for immuno-detecting bacteria in blood and tissues intended to be transferred to a recipient
INVENTOR(S): Goodnow, Timothy T.
PATENT ASSIGNEE(S): Verax Biomedical, Inc., USA
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001006258 A1 20010125 WO 2000-US19298 20000714
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 1999-144442 P 19990716

AB The invention provides methods for screening for the presence of a clin. relevant amt. of bacteria in donor blood or a blood product from a donor mammal, particularly blood or a blood product that will be transferred from the donor mammal to a recipient mammal. The method comprises contacting a sample of the donor blood or a blood product with a set of binding agents that comprises binding agents that specifically bind to Gram-neg. bacterial antigen and/or binding agents that specifically bind to Gram-pos. bacterial antigen, and detg. binding of the set of binding agents to the sample, wherein binding indicates the presence of a clin. relevant amt. of Gram-pos. bacteria and/or Gram-neg. bacteria in the donor blood or blood product and no binding indicates the absence of a clin. relevant amt. of Gram-pos. bacteria and/or Gram-neg. bacteria in the donor blood or blood product. The invention further provides methods and kits for screening for the presence of a clin. relevant amt. of Gram-pos. bacteria, Gram-neg. bacteria, or both Gram-pos. and Gram-neg. bacteria in a donor tissue by screening the fluid in which the donor tissue is stored.

IC ICM G01N033-569
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 10, 14, 63
ST immunoassay bacteria blood tissue transfusion **transplantation**

IT **Transplant** and **Transplantation**
(anal. of tissue for; method and kit for immuno-detecting bacteria in blood and tissues intended to be transferred to a recipient)

IT **Antibiotics**
(as agents binding to Gram-neg. bacterial antigen; method and kit for immuno-detecting bacteria in blood and tissues intended to be transferred to a recipient)

IT Bacteria (Eubacteria)
Blood analysis
Blood plasma
Blood products
Blood serum
Bone marrow
Erythrocyte
Gram-negative bacteria
Gram-positive bacteria (Firmicutes)
Heart
Immunoassay
Kidney
Leukocyte
Liver
Lung
Mammal (Mammalia)
Pancreas
Platelet (blood)
Sample **preparation**
Skin
Spleen
Test kits

(method and kit for immuno-detecting bacteria in blood and **tissues** intended to be transferred to a recipient)
REFERENCE COUNT: 5
REFERENCE(S): (1) Du Pont; EP 0279517 A 1988 HCAPLUS
(2) Panasik, N; WO 9640251 A 1996 HCAPLUS
(3) Pronovost, A; US 5773234 A 1998 HCAPLUS
(4) Richards, J; US 5043267 A 1991 HCAPLUS
(5) Young, L; US 4918163 A 1990 HCAPLUS

L56 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:819234 HCAPLUS
DOCUMENT NUMBER: 132:59191
TITLE: Therapeutic methods employing disulfide derivatives of dithiocarbamates and compositions useful therefor
INVENTOR(S): Lai, Ching-San; Vassilev, Vassil
PATENT ASSIGNEE(S): Medinox, Inc., USA
SOURCE: PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9966918	A1	19991229	WO 1999-US14237	19990622
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6093743	A	20000725	US 1998-103639	19980623
AU 9947119	A1	20000110	AU 1999-47119	19990622
EP 1089723	A1	20010411	EP 1999-930617	19990622
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6316502	B1	20011113	US 2000-565666	20000505

PRIORITY APPLN. INFO.: US 1998-103639 A2 19980623
WO 1999-US14237 W 19990622

OTHER SOURCE(S): MARPAT 132:59191
AB The invention provides a dithiocarbamate disulfide dimer useful in various therapeutic treatments, either alone or in combination with other active agents. In one method, the disulfide deriv. of a dithiocarbamate is coadministered with an agent that inactivates (or inhibits the prodn. of) species that induce the expression of nitric oxide synthase to reduce the prodn. of such species, while, at the same time reducing nitric oxide levels in the subject. In another embodiment, free iron ion levels are reduced in a subject by administration of a disulfide deriv. of a dithiocarbamate(s) to scavenge free iron ions, for example, in subjects undergoing anthracycline chemotherapy. In another embodiment, cyanide levels are reduced in a subject by administration of a disulfide deriv. of a dithiocarbamate so as to bind cyanide in the subject. In a further aspect, the present invention relates to compns. and formulations useful in such therapeutic methods.
IC ICM A61K031-105
CC 1-12 (Pharmacology)

Section cross-reference(s): 4, 27, 28, 33, 34, 63

IT AIDS (disease)
Alzheimer's disease
Anxiety
Asthma
Autoimmune disease
Cachexia
Cardiopulmonary bypass
Cataract
Cirrhosis
Cystic fibrosis
Dermatitis
Diabetes mellitus
Drug dependence
Eczema
Encephalomyelitis
Epilepsy
Glaucoma (disease)
Heart, disease
Hepatitis
Ischemia
Malaria
Meningitis
Multiple sclerosis
Neoplasm
Obesity
Organ preservation
Parkinson's disease
Psoriasis
Rheumatoid arthritis
Schizophrenia
Shock (circulatory collapse)
Transplant rejection
Ulcer
Urticaria
(NO level assoc. with; dithiocarbamate disulfides, alone or with other agents, for therapeutic use)

IT **Transplant** rejection
(**allotransplant**, NO level assoc. with; dithiocarbamate disulfides, alone or with other agents, for therapeutic use)

IT Anti-Alzheimer's agents
Anti-infective agents
Anti-inflammatory agents
Antiarthritics
Antiasthmatics
Antibiotics
Anticoagulants
Antidiabetic agents
Antidiarrheals
Antihistamines
Antimicrobial agents
Antimigraine agents
Antiparkinsonian agents
Antirheumatic agents
Antitumor agents
Antiviral agents
Cardiovascular agents
Cytotoxic agents
Drug delivery systems
Food poisoning

Fungicides
Immunosuppressants
Poisoning, biological
Reducing agents
Retroviridae
Thrombolytics
UV radiation
Virus
(dithiocarbamate disulfides, alone or with other agents, for therapeutic use)

IT **Transplant** and **Transplantation**
(graft-vs.-host reaction, NO level assoc. with; dithiocarbamate disulfides, alone or with other agents, for therapeutic use)

IT **Transplant** and **Transplantation**
(preservation, NO level assoc. with; dithiocarbamate disulfides, alone or with other agents, for therapeutic use)

REFERENCE COUNT: 3
REFERENCE(S): (1) Marangos; US 5206264 A 1993 HCAPLUS
(2) Marangos; US 5373021 A 1994 HCAPLUS
(3) Medford; US 5877203 A 1999 HCAPLUS

L56 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:223022 HCAPLUS
DOCUMENT NUMBER: 130:272055
TITLE: Preparation of fibrin microbeads for **transplantation** of cells
INVENTOR(S): Marx, Gerard; Gorodetsky, Raphael
PATENT ASSIGNEE(S): V.I. Technologies, Inc., USA; Hadasit Medical Research & Development Ltd.
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9915637	A1	19990401	WO 1998-US19084	19980915
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6150505	A	20001121	US 1997-934283	19970919
AU 9894815	A1	19990412	AU 1998-94815	19980915
EP 1015570	A1	20000705	EP 1998-948190	19980915
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001517431	T2	20011009	JP 2000-512930	19980915

PRIORITY APPLN. INFO.: US 1997-934283 A 19970919
WO 1998-US19084 W 19980915

AB The present invention provides fibrin microbeads that are biol. active and comprise extensively cross-linked fibrin(ogen), and a method for prepg. the fibrin microbeads. The present invention also provides a compn. comprising cells bound to the fibrin microbeads, and methods for culturing and sepg. cells using the fibrin microbeads. Finally, the present

invention provides methods for transplanting cells and engineering tissue ulsing the fibrin microbeads.

IC ICM C12N011-08
ICS C12N009-48; A61K009-26; A61K009-22; A61K009-127; A61K009-16; A61K009-50

CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 9

ST **transplantation** cell fibrin microbead

IT Fibrinogens
Fibrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(crosslinked; prepn. of fibrin microbeads for **transplantation** of cells)

IT Microparticles (drug delivery systems)
(microbeads; prepn. of fibrin microbeads for **transplantation** of cells)

IT Animal virus
Antibacterial agents
Antibiotics
Antiviral agents
Bone
Breast carcinoma
Cartilage
Chondrocyte
Fibroblast
Glial cells
Islet of Langerhans
Kidney
Liver
Neuroblastoma
Prosthetic implants
Smooth muscle
Thyroid gland
Transplant (organ)
Vascular endothelium
Wound healing promoters
(**prepn.** of fibrin microbeads for **transplantation** of cells)

IT Coconut oil
Corn oil
Glucocorticoids
Growth factors (animal)
Nucleic acids
Olive oil
Polysiloxanes, biological studies
Proteins (general), biological studies
Soybean oil
Steroids, biological studies
Vegetable oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of fibrin microbeads for **transplantation** of cells)

IT 9002-04-4, Thrombin 9013-56-3, Blood coagulation factor XIII
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of fibrin microbeads for **transplantation** of cells)

REFERENCE COUNT: 5

REFERENCE(S):
(1) Coletica; WO 9404260 A1 1994 HCAPLUS
(2) Dickinson; J Agric Food Chem 1996, V44, P1371 HCAPLUS
(3) Ho; Drug Develop Indust Pharmacy 1994, V20(4), P535 HCAPLUS

(4) Levy; US 5635609 A 1997 HCAPLUS
(5) Rubens; US 5324647 A 1994 HCAPLUS

L56 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:788750 HCAPLUS
DOCUMENT NUMBER: 130:33045
TITLE: Method using a nitric oxide scavenger for in vivo reduction of nitric oxide levels, and compositions useful therefor
INVENTOR(S): Lai, Ching-San
PATENT ASSIGNEE(S): MCW Research Foundation, USA
SOURCE: U.S., 20 pp., Cont.-in-part of U.S. Ser. No. 554,196.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5847004	A	19981208	US 1996-767125	19961209
US 5756540	A	19980526	US 1995-459518	19950602
US 5741815	A	19980421	US 1995-554196	19951106
PRIORITY APPLN. INFO.:			US 1995-459518	19950602
			US 1995-554196	19951106

AB Methods are provided for the in vivo redn. of nitric oxide levels in a mammalian subject. In contrast to the inhibitory approach described in the prior art (i.e., wherein the function of the enzymes responsible for nitric oxide prodn. is inhibited), the present invention employs a scavenging approach whereby overproduced nitric oxide is bound in vivo to a suitable nitric oxide scavenger. The resulting complex renders the nitric oxide harmless, and is eventually excreted in the urine of the host. An exemplary nitric oxide scavenger contemplated for use in the practice of the present invention is a dithiocarbamate-ferrous iron complex. This complex binds to .NO, forming a stable, water-sol. NO-contg. complex having a characteristic three-line spectrum (indicative of a mononitrosyl-Fe complex) which can readily be detected at ambient temps. by EPR spectroscopy. The invention relates to methods for reducing in vivo levels of .NO as a means of treating subjects afflicted with inflammatory and/or infectious disease. Nitric oxide scavengers are administered to a host in need of such treatment; these scavengers interact with in vivo produced .NO, forming a stable NO-contg. complex. The NO-contg. complex is then filtered through the kidneys, concd. in the urine, and eventually excreted by the subject, thereby reducing in vivo .NO levels.

IC ICM A01N037-18
NCL 514599000
CC 1-12 (Pharmacology)
Section cross-reference(s): 63
IT AIDS (disease)
AIDS dementia
Adult respiratory distress syndrome
Allograft rejection
Alzheimer's disease
Amyotrophic lateral sclerosis
Anaphylaxis
Anxiety
Arthritis
Asthma
Atherosclerosis

Autoimmune diseases
Burn
Cachexia
Cardiopulmonary bypass
Cerebral ischemia
Chronic fatigue syndrome
Crohn's disease
Cystic fibrosis
Depression (mental)
Dermatitis
Diabetes mellitus
Drug dependence
Eczema
Encephalomyelitis
Epilepsy
Gastritis
Glomerulonephritis
Graft vs. host reaction
Head injury
Heart diseases
Heart failure
Hemodialysis
Hemorrhagic shock
Hepatitis
Huntington's disease
Hyperphagia
Infection
Inflammation
Inflammatory bowel diseases
Ischemia
Liver cirrhosis
Liver diseases
Lung injury
Malaria
Meningitis
Migraine
Multiple sclerosis
Myocarditis
Nephritis
Neurodegenerative diseases
Obesity
Pancreatitis
Parkinson's disease
Peritonitis
Premenstrual syndrome
Psoriasis
Renal failure
Reperfusion injury
Schizophrenia
Septic shock
Stroke
Systemic lupus erythematosus
Toxic shock syndrome
Transplant rejection
Tumors (animal)
Ulcer
Ulcerative colitis
Urticaria
Uveitis
Vasculitis

(nitric oxide overprodn. assocd. with; nitric oxide scavenger for in vivo redn. of nitric oxide level)

IT **Antibiotics**
Cardiovascular agents
(nitric oxide scavenger for in vivo redn. of nitric oxide level, and combination use)

IT **Transplant (organ)**
(**preservation**, nitric oxide overprodn. assocd. with; nitric oxide scavenger for in vivo redn. of nitric oxide level)

REFERENCE COUNT: 28
REFERENCE(S):
(1) Aisaka; Biochem Biophys Res Commun 1989, V160, P881 HCAPLUS
(2) Aisaka; Biomed & Biophys Res Commun 1989, V163, P710 HCAPLUS
(6) Anon; WO 95/30415 1995 HCAPLUS
(7) Balter, M; Science 1995, V268, P205 HCAPLUS
(8) Barnes; Immunology Today 1995, V16, P128 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:678042 HCAPLUS
DOCUMENT NUMBER: 129:244988
TITLE: Preparation of macrolides having immunosuppressive activity
INVENTOR(S): Sinclair, Peter J.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Brit. UK Pat. Appl., 55 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2316074	A1	19980218	GB 1997-16038	19970730

PRIORITY APPLN. INFO.: US 1996-23367 19960806
OTHER SOURCE(S): MARPAT 129:244988

AB The title compds. [I; Ar = Ph, naphthyl, biphenylyl, each optionally substituted with 1-3 groups independently selected from X; X = alkyl, alkenyl, halo, etc.; R1 = H, alkyl, alkanoyl, etc.; R2 = H, Me; R3 = H, OR1; R4 = H, or R3R4 = double bond; R5 = Me, Et, Pr, allyl; W = O, or (H, OH); Y = bond, alkyl, alkenyl, alkynyl, etc.; n = 1, 2] or their pharmaceutically acceptable salts, useful for treatment of immunoregulatory diseases and of resistance to transplantation, are prepd. Thus, peracetic acid was added to a stirred soln. of tri-2-naphthylbismuthine in CH2Cl2-THF, after 5 min, 17-ethyl-1,14,20-trihydroxy-12-[2'-(4"-hydroxy-3"-methoxycyclohexyl)-1'-methylvinyl]-23,25-dimethoxy-13,19,21,27-tetramethyl-11,28-dioxa-4-azatricyclo[22.3.1.04,9]octacos-18-ene-2,3,10-16-tetrone and Cu(OAc)2 were added and the mixt. was stirred at room temp. overnight to give the title compd. 17-ethyl-1,14,20-trihydroxy-12-[2'-(4"-(naphth-2-yloxy)-3"-methoxycyclohexyl)-1'-methylvinyl]-23,25-dimethoxy-13,19,21,27-tetramethyl-11,28-dioxa-4-azatricyclo[22.3.1.04,9]octacos-18-ene-2,3,10-16-tetrone. A procedure is described for T-cell proliferation assay of I, but no assay results are given.

IC ICM C07D491-18
ICS A61K031-435
ICI C07D491-18, C07D221-00, C07D273-01, C07D311-00
CC 26-6 (Biomolecules and Their Synthetic Analogs)

Section cross-reference(s): 1
ST macrolide **antibiotic prepn organ transplant; organ transplant** resistance suppressant macrolide **antibiotic**; immunosuppressant macrolide **antibiotic prepn**
IT Macrolide **antibiotics**
(**antibiotic**; prepn. of macrolides having immunosuppressive activity)
IT **Transplant** rejection
(suppressants; prepn. of macrolides having immunosuppressive activity)

L56 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:635658 HCAPLUS
DOCUMENT NUMBER: 129:280999
TITLE: Compositions containing lysophosphatidic acids which inhibit apoptosis and uses thereof
INVENTOR(S): Bathurst, Ian C.; Foehr, Matthew W.; Goddard, J. Graham; Vmansky, Samuil R.; Bradley, John D.; Picker, Donald H.
PATENT ASSIGNEE(S): LXR Biotechnology Inc., USA
SOURCE: PCT Int. Appl., 156 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9841213	A1	19980924	WO 1998-US5325	19980318
W: AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9865650	A1	19981012	AU 1998-65650	19980318
EP 1024812	A1	20000809	EP 1998-911776	19980318
R: CH, DE, FR, GB, IT, LI, NL				

PRIORITY APPLN. INFO.:
US 1997-39376 P 19970319
US 1997-39379 P 19970319
US 1997-39380 P 19970319
US 1997-56120 P 19970820
WO 1998-US5325 W 19980318

OTHER SOURCE(S): MARPAT 129:280999
AB The present invention provides therapeutic compns. contg. lysophosphatidic acids (LPA), methods for making the compns., and methods of use thereof. The compns. comprising LPA and a potentiating component, exhibit anti-apoptosis activity and preserve or restore functions of cells, tissues, and organs. The present invention specifically encompasses 3-O-oleoyl-2-O-methylglycero-1-thiophosphate, oleyl 1-thiophosphoryl-2-O-methylglycerate, 3-O-oleyl-2-O-methylglycero-1-thiophosphate, and salts thereof.
IC ICM A61K031-66
ICS A61K031-07; A61K047-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT Alopecia
Analgesics

Angioplasty
Anti-inflammatory drugs
Antiarthritics
Antibiotics
Antidepressants
Antiemetics
Antihistamines
Antihypertensives
Antimigraine drugs
Antioxidants
Antiparkinsonian agents
Antipsychotics
Antipyretics
Antithrombotics
Antiviral agents
Anxiolytics
Apoptosis
Appetite depressants
Burn
Cardioplegia
Cardiovascular agents
Chemotherapy
Cholinergic antagonists
Contraceptives
Coronary vasodilators
Diuretics
Drug delivery systems
Heart failure
Immunosuppressants
Ischemia
Opioid antagonists
Organ preservation
Parasiticides
Spasmolytics
Surfactants
Tranquilizers
Transplant (organ)
Trauma
Vasodilators
Wound healing promoters
(compns. contg. lysophosphatidic acids and potentiating components for inhibition of apoptosis)

L56 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:718036 HCAPLUS
DOCUMENT NUMBER: 128:19355
TITLE: methods for prepg. mammalian artificial chromosomes (MACs)
INVENTOR(S): Hadlaczky, Gyula; Szalay, Aladar A.
PATENT ASSIGNEE(S): Hadlaczky, Gyula, Hung.; Szalay, Aladar A.; American Gene Therapy, Inc.; Biological Research Center of the Hungarian Academy of Sciences; Loma Linda University
SOURCE: PCT Int. Appl., 248 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9740183	A2	19971030	WO 1997-US5911	19970410
WO 9740183	A3	19980205		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 6077697	A	20000620	US 1996-682080 19960715
US 6025155	A	20000215	US 1996-695191 19960807
AU 9724512	A1	19971112	AU 1997-24512 19970410
EP 929689	A2	19990721	EP 1997-920284 19970410

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

BR 9708855	A	20000104	BR 1997-8855 19970410
JP 2000508177	T2	20000704	JP 1997-538116 19970410

PRIORITY APPLN. INFO.:

US 1996-629822	A	19960410
US 1996-682080	A	19960715
US 1996-695191	A	19960807
US 1996-682191	A	19960715
WO 1997-US5911	W	19970410

AB Methods for prepg. cell lines that contain artificial chromosomes, methods for prepn. of artificial chromosomes, methods for purifn. of artificial chromosomes, methods for targeted insertion of heterologous DNA into artificial chromosomes, and methods for delivery of the chromosomes to selected cells and tissues are provided. Also provided are cell lines for use in the methods, and cell lines and chromosomes produced by the methods. In particular, satellite artificial chromosomes [SATACs] that, except for inserted heterologous DNA, are substantially composed of heterochromatin, are provided. Methods for use of the artificial chromosomes, including for gene therapy, prodn. of gene products and prodn. of transgenic plants and animals are also provided.

IC ICM C12N015-90
ICS C12N015-85

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9

IT Proteins (specific proteins and subclasses)
RL: BAC (Biological activity or effector, except adverse); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(cell surface-assocd., expression of human cell surface proteins preventing **organ transplantation** rejection; methods for **prepg.** mammalian artificial chromosomes (MACs))

IT **Transplant** (**organ**)
(expression of human cell surface proteins preventing **organ transplantation** rejection; methods for **prepg.** mammalian artificial chromosomes (MACs))

IT **Antibiotic** resistance
(selectable marker as resistance to neomycin; methods for prepg. mammalian artificial chromosomes (MACs))

L56 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:699046 HCAPLUS
DOCUMENT NUMBER: 127:322814
TITLE: **Antibiotic** cocktail for decontaminating tissues
INVENTOR(S): Brockbank, Kelvin G. M.; Goldstein, Steven; Adoma, Chigoke; Sheldon, Judith K.; Dawson, Patti E.

PATENT ASSIGNEE(S): Cryolife, Inc., USA
SOURCE: PCT Int. Appl., 471 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9736479	A1	19971009	WO 1997-US4700	19970324
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5741782	A	19980421	US 1996-626167	19960329
CA 2250036	AA	19971009	CA 1997-2250036	19970324
AU 9725418	A1	19971022	AU 1997-25418	19970324
AU 708060	B2	19990729		
EP 889690	A1	19990113	EP 1997-916935	19970324
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1219103	A	19990609	CN 1997-194759	19970324
BR 9708306	A	19990803	BR 1997-8306	19970324
JP 2000507953	T2	20000627	JP 1997-535345	19970324
IL 126123	A1	20010128	IL 1997-126123	19970324

PRIORITY APPLN. INFO.: US 1996-626167 A 19960329
WO 1997-US4700 W 19970324

AB An antibiotic cocktail for sterilizing tissue comprising amphotericin B and fluconazole as antifungal agents and a plurality of antibacterial agents. The agents are present in amts. effective to substantially inhibit fungal and bacterial growth while substantially maintaining the viability of the tissue. Also, a method of sterilizing a tissue comprising contacting the tissue with the antibiotic cocktails of the invention at a temp. and for a period of time effective to substantially inhibit fungal and bacterial growth while substantially maintaining the viability of the tissue. Fluconazole was added to a cocktail contg. imipenem and vancomycin for decontaminating heart valve tissue.

IC ICM A01N001-02
ICS A61K031-41; A61K031-50; A61K031-70; A61K031-335; A61K031-495; C12N005-00

CC 63-6 (Pharmaceuticals)

ST **antibiotic** cocktail tissue; antibacterial antifungal cocktail tissue

IT Animal tissue
Antibacterial agents
Antibiotics
Fungicides
Organ preservation
Sterilization (cleaning)
Transplant (organ)
(**antibiotic** cocktail for decontaminating **tissues**)

IT 154-21-2, Lincomycin 1397-89-3, Amphotericin B 1404-90-6, Vancomycin 13292-46-1, Rifampin 56391-56-1, Netilmicin 63527-52-6, Cefotaxime 64221-86-9, Imipenem 86386-73-4, Fluconazole
RL: BAC (Biological activity or effector, except adverse); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)
(**antibiotic** cocktail for decontaminating tissues)

L56 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:684239 HCAPLUS
DOCUMENT NUMBER: 127:322829
TITLE: Corneal storage fluid comprised of hyaluronic acid
INVENTOR(S): Ponzin, Diego
PATENT ASSIGNEE(S): Fidia S.P.A., Italy; Ponzin, Diego
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9737537	A1	19971016	WO 1997-EP1703	19970404
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2251032	AA	19971016	CA 1997-2251032	19970404
AU 9725087	A1	19971029	AU 1997-25087	19970404
AU 732648	B2	20010426		
EP 891133	A1	19990120	EP 1997-916438	19970404
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
CN 1215306	A	19990428	CN 1997-193593	19970404
BR 9708502	A	19990703	BR 1997-8502	19970404
JP 2000508637	T2	20000711	JP 1997-535835	19970404
US 2001009908	A1	20010726	US 1998-155675	19981202

PRIORITY APPLN. INFO.: IT 1996-PD84 A 19960404
WO 1997-EP1703 W 19970404

AB A soln. for storing corneal tissue, esp. at 2-8.degree., comprises hyaluronic acid having an av. mol. wt. of <6,000,000 Da (preferably 50,000-250,000 Da). The storage soln. further contains a balanced electrolyte soln. and at least one antibiotic. Corneas were stored in a soln. contg. Na hyaluronate, HEPES, and gentamycin and successfully used for keratoplasty.

IC ICM A01N001-02
ICS A61K031-725

CC 63-7 (Pharmaceuticals)

ST cornea storage soln hyaluronate **antibiotic**; keratoplasty cornea preservation soln hyaluronate

IT **Transplant** (**organ**)
(cornea **transplant**; corneal **storage** fluid contg. hyaluronate)

IT **Antibiotics**
Electrolytes
Preservation solutions (**tissue**)
(corneal **storage** fluid contg. hyaluronate)

IT Cornea (eye)
(**transplant**; corneal storage fluid contg. hyaluronate)

L56 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:371710 HCAPLUS
DOCUMENT NUMBER: 127:23841
TITLE: Containers and solutions for **preserving organs**
INVENTOR(S): Isono, Keinosuke
PATENT ASSIGNEE(S): Shin Sozai Sogo Kenkyusho, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09084853	A2	19970331	JP 1995-269340	19950922

AB A plastic container for storing internal organs and a preserving soln., are disclosed. The container has a multiple compartments, at least one of which contains a bicarbonate to maintain alky. of the soln. The preserving soln. may contain antibiotics, physiol. active proteins, saccharides, vitamins, org. acids, nucleic acids, pressure-lowering agents, and/or anticoagulants. The inner wall of the container is made of polyethylene/polypropylene. Figures describing cross-section of the container are provided.

IC ICM A61J001-05
ICS A01N001-02

CC 63-8 (Pharmaceuticals)

ST **organ preservation** bicarbonate polyolefin container

IT Proteins (specific proteins and subclasses)
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biol. active, in **preserving** soln.; containers and solns. for **preserving organs**)

IT **Organ preservation**
Transplant (**organ**)
(containers and solns. for **preserving organs**)

IT Bicarbonates
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(containers and solns. for **preserving organs**)

IT Polyolefins
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(containers and solns. for **preserving organs**)

IT Medical goods
(containers; containers and solns. for **preserving organs**)

IT **Antibiotics**
Anticoagulants
Antihypertensives
(in **preserving** soln.; containers and solns. for **preserving organs**)

IT Carbohydrates, biological studies
Nucleic acids
Organic acids
Vitamins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in **preserving** soln.; containers and solns. for

preserving organs)
IT Containers
(medical; containers and solns. for **preserving organs**
)
IT 144-55-8, Carbonic acid monosodium salt, biological studies
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(containers and solns. for **preserving organs**)
IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(containers and solns. for **preserving organs**)

L56 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:87716 HCAPLUS
DOCUMENT NUMBER: 118:87716
TITLE: A serum-free solution containing growth factors for **preservation** of eye **tissues**
INVENTOR(S): Lindstrom, Richard L.; Skelnik, Debra L.
PATENT ASSIGNEE(S): USA
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516901	A1	19921209	EP 1991-305125	19910606
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CA 2044552	AA	19921214	CA 1991-2044552	19910613
JP 05007619	A2	19930119	JP 1991-152056	19910624
JP 06065061	A2	19940308	JP 1991-153304	19910625

PRIORITY APPLN. INFO.: EP 1991-305125 19910606
AB A serum-free medical soln. for application in ophthalmol. contains growth factors to maintain and enhance the preservation of eye tissues, including human corneal tissues at low temps., 2-15.degree.. The soln. is further composed of an aq. nutrient and electrolyte soln., supplemented with glycosaminoglycans, buffer agents, energy sources, antioxidants, and membrane-stabilizing components. Com.-available corneal storage media, CSM was supplemented with 1% dextran (mol. wt. 40,000) and 5 .mu.g bovine insulin/mL and human corneal endothelial cells were kept at 4.degree. for av. 3.8 days. A quant. bioassay examg. the rate of stimulation or inhibition of DNA synthesis of human corneal endothelial cells as well as a clin. trial evaluating corneal thickness and endothelial survival for corneas were conducted.
IC ICM A01N001-02
ICS A61K037-02
CC 63-8 (Pharmaceuticals)
IT Named reagents and solutions
RL: BIOL (Biological study)
(TC-199, eye **tissue preservation** soln. contg. growth factor and)
IT Animal growth regulators
RL: USES (Uses)
(eye **tissue preservation** soln. contg.)
IT **Antibiotics**
Antioxidants
Buffer substances and systems

Fungicides and Fungistats
Glycosaminoglycans, biological studies
Transferrins
RL: BIOL (Biological study)
(eye **tissue preservation** soln. contg. growth factor and)

IT **Transplant** and **Transplantation**
(of eye cornea, serum-free soln. contg. growth factors for preservation in)

IT **Organ preservation**
(of eye **tissues**, serum-free soln. contg. growth factors for)

IT Named reagents and solutions
RL: BIOL (Biological study)
(Eagle's MEM, eye **tissue preservation** soln. contg. growth factor and)

IT Eye
(cornea, **transplant**, preservation soln. contg. growth factors effects on)

IT Eye
(keratoplasty, cornea **transplant** in, preservation soln. contg. growth factors for)

IT 9004-10-8, Insulin, biological studies 62229-50-9, Epidermal growth factor 67763-96-6, Insulin-like growth factor I 67763-97-7, Insulin-like growth factor II 106096-92-8 106096-93-9, Fibroblast growth factor basic
RL: BIOL (Biological study)
(eye **tissue preservation** soln. contg.)

IT 50-81-7, Ascorbic acid, biological studies 50-99-7, D-Glucose, biological studies 57-48-7, D-Fructose, biological studies 59-02-9, .alpha.-Tocopherol 60-24-2, 2-Mercaptoethanol 70-18-8, Glutathione, biological studies 127-17-3, Pyruvic acid, biological studies 141-43-5, Ethanolamine, biological studies 302-79-4, Retinoic acid 1071-23-4, Phosphoethanolamine 1397-89-3, Fungizone 1403-66-3, Gentamycin 7782-49-2, Selenium, biological studies 9003-20-7, Polyvinyl acetate 9003-39-8, Polyvinyl pyrrolidone 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9004-65-3 9005-49-6, Heparin sulfate, biological studies 9007-28-7, Chondroitin sulfate 9042-14-2, Dextran sulfate 9056-36-4, Keratosulfate 11103-57-4, Vitamin A 12001-76-2, Vitamin B 24967-94-0 88813-67-6
RL: BIOL (Biological study)
(eye **tissue preservation** soln. contg. growth factor and)

L56 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:582952 HCAPLUS
DOCUMENT NUMBER: 115:182952
TITLE: Preparation of aminomacrolides and derivatives having immunosuppressive activity
INVENTOR(S): Beattie, Thomas R.; Fischer, Michael H.; Ok, Hyun O.; Wyvratt, Matthew J.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 56 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 428365	A1	19910522	EP 1990-312340	19901113
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
CA 2029860	AA	19910514	CA 1990-2029860	19901113
JP 03209386	A2	19910912	JP 1990-304209	19901113
JP 06104669	B4	19941221		
US 5208228	A	19930504	US 1991-698888	19910513
PRIORITY APPLN. INFO.:			US 1989-434158	19891113
			US 1990-598440	19901022

OTHER SOURCE(S): MARPAT 115:182952

AB Aminomacrolides and analogs I [R = Me, Et, Pr, CH2CH:CH2; R1, R2 = N3, NHCN, (substituted) amino, OH, C1-6 alkoxy, etc., R1 and R2 are not simultaneously OH, C1-6 alkoxy of combinations thereof; R1R2 may form 3-7 membered heterocyclyl; R3 = H, OH, C1-6 alkoxy; R4 = H or R3R4 = double bond; X = O or H, OH; n = 1, 2], useful as immunosuppressives, for example, were prepd. Thus, I (R = Et, R1 = OMe, R2 = R3 = OH, R4 = H, X = O, n = 2) was treated with (Me2CH)3SiOSO2CF3 and the 4'',14-disiloxy compd. selectively desilylated by 10% TsOH to give the 14-siloxy protected compd. Treatment of the latter with a THF soln. contg. (PhO)2P(O)N3, Ph3P and DEAD, followed by deprotection by HF gave title azide I (R2 = N3) which was reduced by Ph3P in wet PhMe to give title amine I (R2 = NH2) (II). The IC50 values of II and 7 other I against T-cell proliferation were <1 .times. 10-6M.

IC ICM C07H019-01
ICS A61K031-70

CC 26-6 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 33

ST aminomacrolide **prepn** immunosuppressive; **organ transplant** rejection treatment aminomacrolide; autoimmune disease treatment aminomacrolide; inflammatory skin disease treatment aminomacrolide; hyperproliferative skin disease treatment aminomacrolide

IT **Antibiotics**
(macrolide, amino- and analogs, prepn. of, as immunosuppressives)

IT Organ
(**transplant**, rejection of, prevention of, aminomacrolides and analogs for)

```
=> d his

     (FILE 'HCAPLUS' ENTERED AT 12:57:27 ON 17 DEC 2001)
               DEL HIS Y

     FILE 'WPIDS' ENTERED AT 13:22:46 ON 17 DEC 2001
L1          1308 S HETEROGRAFT# OR ALLOGRAFT# OR XENOGRAFT# OR HOMOGRAFT# OR AUT
L2         14112 S ?TRANSPLANT?
L3        143507 S ORGAN# OR TISSUE#
L4          7914 S L3 (6A) (PREP? )
L5          1451 S L3 (6A) (?PRESERVA? OR STORAGE?)
L6           244 S L4 AND (L1 OR L2)
L7           318 S L5 AND (L1 OR L2)
L8         17275 S BLEACH OR HYPOCHLORITE
L9             0 S L7 AND L8
L10        14923 S IODINE OR IODOPHOR#
L11            1 S L10 AND L7
L12          560 S HYPERTONIC
L13            6 S L7 AND L12
L14       190216 S HYDROXIDE# OR DODECYLSULFATE OR DODECYLSULPHATE OR UREA OR PH
L15           10 S L7 AND L14
L16            1 S KANAMYCIN? AND L7
L17        50771 S PEROXIDE# OR PERACETIC OR PERBENZOIC OR  PERMANGANATE
L18            3 S L7 AND L17
L19            2 S ANTIBITOTIC#
L20        23382 S ANTIBIOTIC#
L21           14 S L7 AND L20
L22           33 S L11 OR L13 OR L15 OR L16 OR L18 OR L21
L23        36255 S DETERGENT#
L24            1 S L7 AND L23
L25           33 S L24 OR L22

=> d .wp 1-33

L25  ANSWER 1 OF 33  WPIDS COPYRIGHT 2001   DERWENT INFORMATION LTD
AN   2001-299914 [31]   WPIDS
DNC  C2001-092042
TI   New pentaazamacrocycle complex catalysts, useful as superoxide dismutase
     mimics for treating e.g. radiation or chemical injury, have substituents
     on unsaturated nitrogen-containing heterocyclic moiety on
     pentaazacyclopentadecane macrocycle.
DC   B02
IN   ASHTON, K W; FOBIAN, Y; GRAPPERHAUS, L; HENKE, S L; KUSTURIN, C L; LENNON,
     P; NEUMANN, W L; RILEY, D; SALVEMINI, D; SIKORSKI, J A
PA   (MONS) MONSANTO CO
CYC  94
PI   WO 2001019823 A2 20010322 (200131)* EN   99p
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TZ UG ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
            DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
            LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
            SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
     AU 2000077024 A  20010417 (200140)
ADT  WO 2001019823 A2 WO 2000-US25154 20000914; AU 2000077024 A AU 2000-77024
     20000914
FDT  AU 2000077024 A Based on WO 200119823
PRAI US 1999-398120   19990916
AB   WO 200119823 A UPAB: 20010607
     NOVELTY - New pentaazamacrocycle complex catalysts (I) for the dismutation
```

of superoxide have substituents added to an unsaturated nitrogen-containing heterocyclic moiety on the pentaazacyclopentadecane macrocycle of prior art complexes.

DETAILED DESCRIPTION - Substituted pentaazamacrocycle complex catalysts for the dismutation of superoxide of formula (I) are new.

A nitrogen of the macrocycle and the 2 adjacent carbon atoms to which it is attached form a substituted, unsaturated, nitrogen-containing heterocycle W having 2-20 carbon atoms, which may be an aromatic heterocycle, in which case the hydrogen attached to the nitrogen which is both part of the heterocycle and the macrocycle and the R groups attached to the carbon atoms which are both part of the heterocycle and the macrocycle are absent;

R, R1-R9, R'2-R'9 = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkylalkyl, cycloalkylcycloalkyl, cycloalkenylakyl, alkylcycloalkyl, alkylcycloalkenyl, alkenylcycloalkyl, alkenylcycloalkenyl, heterocyclic, aryl or aralkyl (all optionally substituted); or

one or more of R2 or R'2 and R3 or R'3, R4 or R'4 and R5 or R'5, R6 or R'6 and R7 or R'7, or R8 or R'8 and R9 or R'9 together with the carbon atoms to which they are attached form an optionally substituted nitrogen-containing heterocycle having 2-20 C atoms, which may be an aromatic heterocycle, in which case the hydrogen attached to the nitrogen which is both part of the heterocycle and the macrocycle and the R groups attached to the carbon atoms which are both part of the heterocycle and the macrocycle are absent; or

one or more of R2 and R'2, R3 and R'3, R4 and R'4, R5 and R'5, R6 and R'6, R7 and R'7, R8 and R'8, and R9 and R'9 together with the carbon atom to which they are attached form a saturated, partially saturated or unsaturated cyclic or heterocyclic having 3-20C atoms; or

one of R, R1-R9 and R'2-R'9 together with a different one of R, R1-R9 and R'2-R'9 which is attached to a different carbon atom in the macrocyclic ligand may be bound to form a strap of formula (CH2)x-M-(CH2)w-L-(CH2)z-J-(CH2)y;

w, x, y, z = 0-10;

M, L, J = alkyl, alkenyl, alkynyl, aryl, cycloalkyl, heteroaryl, alkaryl, alkheteroaryl, aza, amide, ammonium, oxa, thia, sulfonyl, sulfinyl, sulfonamide, phosphoryl, phosphinyl, phosphino, phosphonium, keto, ester, alcohol, carbamate, **urea**, thiocarbonyl, borates, boranes, boraza, silyl, siloxy and/or silaza;

M may also be a cation of a transition metal selected from manganese and iron;

X, Y, Z = suitable ligands or charge-neutralizing anions which are derived from any monodentate or polydentate coordinating ligand or ligand system or their corresponding anions.

INDEPENDENT CLAIMS are also included for the following:

(A) a macrocyclic organic ligand of formula (II);

(B) a method for dismutating superoxide anions comprising adding (I) to an aqueous environment containing superoxide anions;

(C) method of preparing (I).

ACTIVITY - Vasotropic; antiinflammatory; antiulcer; antirheumatic; antiarthritic; osteopathic; hypotensive; hypertensive; antipsoriatic; immunosuppressive; cerebroprotective; cytostatic; ophthalmological; analgesic; antibacterial.

MECHANISM OF ACTION - (I) catalytically dismutate superoxide radicals.

In the determination of catalytic activity of compounds (I) using the method described in Riley et. al, Anal. Biochem., 196, 344-349 (1991), manganese(II)dichloro(4R,9R,14R,19R-24-S-(3-hydroxypropanethio)-3,10,13,20,26-pentaazatetracyclo-(20.3.1.04,9.014,19)hexacosa-1(26),22(23),24-triene) (Ia) exhibited a catalytic constant (kcat) of 3.97

x 10-7M-1s-1 at pH 7.4 for the decay of superoxide in water.

USE - (I) are low molecular weight superoxide dismutase mimics and are especially manganese and iron complex catalysts for the dismutation of superoxide radicals. (I) are useful for preventing or treating a disease or disorder (especially radiation or chemical injury) in which superoxide anions are implicated and are for therapeutic, prophylactic, pathologic or resuscitative administration. The radiation or chemical injury may be caused by exposure to agents comprising UV light, alpha particles, gamma radiation, proton radiation and chemical agents. The disease or disorder in which superoxide anions are implicated include reperfusion injury to the ischemic myocardium, general inflammation, inflammatory bowel disease, ulcerative colitis, Crohn's disease, rheumatoid arthritis, osteoarthritis, hypertension, psoriasis, **organ transplant** rejections, **organ preservation**, radiation-induced injury, platelet aggregation, stroke, autoimmune diseases, refractory hypotension, adult respiratory distress, carcinogenesis, anti-tumor, anti-metastatic, uveitis, severe chronic pain, reversal opioid tolerance, hyperalgesia and sepsis. The disease is especially ischemic reperfusion injury, inflammation, hyperalgesia, sepsis, refractory hypotension, stroke, reversal of opioid tolerance and hypertension (all claimed).

Intraplantar injection of carrageenan in rats resulted in a time-dependent increase in paw volume and hyperalgesia that was maximal after 3 hours. (Ia) administered at 1 mg/kg to male Sprague-Dawley rats at the time of maximal hyperalgesia in the rat paw carrageenan model caused 68% inhibition of pain after 15 minutes. Also, (Ia) completely prevented the fall in mean arterial pressure (MAP) and thus prevented hypotension associated with septic shock in a rat model of live E. Coli-induced shock. Septic shock induced by injection of E. Coli (1010) results in a progressive and time dependent fall in MAP leading to more than 90% mortality of animals within 24 hours. (Ia) maintained MAP values of 125 mmHg (which was similar to basal values) throughout the course of experiment.

ADVANTAGE - Addition of substituents to the unsaturated N-containing heterocyclic moiety on the pentaazacyclopentadecane macrocycle of prior art compounds (described in e.g. US5610293 and US5637578) to give (I), drastically alters both the superoxide dismutase catalytic activity and increases the efficacy of the complexes as pharmaceutical agents. (I) exhibit a marked increase in potency for the prevention or reversal of opioid tolerance compared to the prior art complexes having unsubstituted N-containing heterocyclic moieties. In addition, (I) are up to 10 times more potent as pharmaceutical agents for antiinflammatory and analgesic compositions, and are as good as, or often better than, the parent unsubstituted compounds in applications such as the treatment of endotoxin-induced refractory hypotension. (I) thus demonstrate improvement in characteristics important for pharmaceuticals over the previously described pentaazacyclopentadecane complexes with unsubstituted nitrogen-containing heterocyclic moieties.

Dwg.0/10

L25 ANSWER 2 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-080578 [09] WPIDS
DNC C2001-023198
TI New 2-pyridyl-porphyrins are peroxynitrite decomposition catalysts, useful e.g. in treating Alzheimer's disease, amyotrophic lateral sclerosis, stroke, autoimmune diseases and cancer.
DC B02
IN GROVES, J T; MOELLER, S M
PA (UYPR-N) UNIV PRINCETON
CYC 93
PI WO 2000075144 A2 20001214 (200109)* EN 45p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI
SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000054603 A 20001228 (200119)
ADT WO 2000075144 A2 WO 2000-US15269 20000602; AU 2000054603 A AU 2000-54603 20000602
FDT AU 2000054603 A Based on WO 200075144
PRAI US 2000-587382 20000601; US 1999-137308P 19990603
AB WO 200075144 A UPAB: 20011129
NOVELTY - Metallic complexes of substituted 2-pyridyl-porphyrins (I)-(VII), their bases, acid addition salts, hydrates, esters, solvates, prodrugs, metabolites and/or stereoisomers are new.

DETAILED DESCRIPTION - Metallic complexes of substituted 2-pyridyl-porphyrins of formula (I)-(VII), their bases, acid addition salts, hydrates, esters, solvates, prodrugs, metabolites and/or stereoisomers are new.

At least one of R1- R4, A -D = (CH2)n-X, (CH2)n'-Y, Y2-C-(Z1)3, (CH2)p-C(O)-Y-C(Z2)3, (CH2)q-OCH2C(CH2OH) or (CH2)q-O-CH2C(CH2OH)2(H or Me) (sic);

n = 1-6;

X = CO2H, CONH2, CONR'2, PO3H2, SO3H, NH2, NR'2 or NR3+;

n' = 2;

Y = OH or (O-(CH2)2)m-W;

W = OH or (O-(CH2)2)m;

m = 1-200;

Z1 = CH2OCH2(CH2)p-X or Y';

Y' = (CH2)-N-O, (CH2)pNH or (CH2)pS;

p = 1-10;

Z2 = O-CHCHC-C(O)-Y-(C(Z3)3)p';

p' = 1-100;

Z3 = OCHCHC-C(O)-Y-C(Z4)3;

Z4 = OCHCHC-C-Z5;

Z5 = CO2H, CONH2, CONR'2, PO3H2, SO3H, NH2, NR'2 or NR'3+; and

M = Mn, Fe, Ni or V.

R' is not defined.

An INDEPENDENT CLAIM is also included for a complex of formula (I) where R1-R4 may also be (CH2)-C(H)=C(H), CH2CONH2, CH2CO2CH2Me or (CH2CH2O)2CH2CH2OMe.

ACTIVITY - Nootropic; neuroprotective; anti-HIV; antiinflammatory; immunosuppressive; anticonvulsant; antiarteriosclerotic; antibacterial; cytostatic; vulnerary; osteopathic; ophthalmological; neuroprotective; dermatological; antiarthritic; antiasthmatic; nephrotropic.

MECHANISM OF ACTION - None given.

USE - (I)-(VII) are used to lower peroxynitrite levels in a cell or tissue, and for the treatment of Alzheimer's disease, amyotrophic lateral sclerosis, stroke, AIDS-related dementia, Huntington's disease, atherosclerosis, chronic inflammation, autoimmune diseases, cancer, ischemia-reperfusion injury, septic shock and chronic graft rejection (claimed). They can also be used as diagnostic probes to determine the involvement of peroxynitrite and other reactive oxygen and nitrogen species in disease states both in vivo and in vitro. They can be used to prevent or reduce cellular damage resulting from exposure to chemicals which produce potentially damaging free radical species. They may be administered for preventing ischemic reoxygenation injury in a patient, for preserving organs for **transplant** in an apoxic, hypoxic or hyperoxic state prior to **transplant**, for protecting normal tissue from free radical-induced damage following exposure to ionizing

radiation and/or chemotherapy, as with bleomycin, for protecting cells and tissues from free radical-induced injury following exposure to xenobiotic compounds which form free radicals, either directly or as a consequence of monooxygenation through the cytochrome P-450 system and for enhancing **cryopreservation** of cells, **tissues**, **organs** and organisms by increasing viability of recovered specimens. They can be prophylactically administered to prevent carcinogeneisis, cellular senescence, cataract formation, formation of malondialdehyde adducts, HIV pathology and macromolecular crosslinking such as collagen crosslinking. They can be used to enhance the recovery of skin of warm blooded animals from wounds such as surgical incisions, burns, inflammation or minor irritation due to oxidative damage. Other diseases to be treated included disorders of the joints (e.g. arthritis), bone diseases associated with increased bone resorption, inflammatory bowel diseases (e.g. Crohn's disease), inflammatory lung diseases (e.g. asthma), inflammatory disorders of the eye (e.g. corneal dystrophy), chronic inflammatory disorders of the gum (e.g. gingivitis), tuberculosis, leprosy, inflammatory disorders of the kidney, skin, central nervous system and multiple sclerosis.

ADVANTAGE - (I)-(VII) have very low, if any toxicity. Since the degree to which peroxynitrite decomposition agents bind and cleave DNA is indicative of their cellular toxicity, the calf thymus-DNA titration of both 4-tetrakis(carboxamide)pyridyl porphyrin (4-T(CX)PyP) and 2-T(CX)PyP was carried out. It was found that in the case of 4-T(CX)PyP, there was a loss of intensity in the Soret band and a pronounced redshift, these being indicative of both porphyrin intercalation into DNA and outside stacking of porphyrin along the DNA backbone. In the analogous titration with 2-T(CX)PyP, only a small change in the Soret band was observed which indicates little or no association with DNA. Even when CT-DNA was added in large excess to the solution of the porphyrin, a redshift of only 2 nM was observed. Further, upon treatment with oxidants such as hydrogen **peroxide**, oxone or peroxynitrite, the 2-pyridyl porphyrins caused much less DNA cleavage.

Dwg.0/6

L25 ANSWER 3 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-601920 [57] WPIDS
DNC C2000-180091
TI Preparation for perfusing **organ** prior to **transplantation** or **storage** comprises soluble derivative of a soluble polypeptide which comprises two heterologous membrane binding elements with low membrane affinity.
DC B04 D16 D22
IN PRATT, J R; SACKS, S H; SMITH, R A G
PA (ADPR-N) ADPROTECH LTD
CYC 91
PI WO 2000053007 A1 20000914 (200057)* EN 47p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000029306 A 20000928 (200067)
ADT WO 2000053007 A1 WO 2000-GB834 20000308; AU 2000029306 A AU 2000-29306 20000308
FDT AU 2000029306 A Based on WO 200053007
PRAI GB 1999-5503 19990310
AB WO 200053007 A UPAB: 20001109
NOVELTY - A preparation (P) for perfusing an **organ** prior to **transplantation** or **storage** comprising a soluble

derivative (Ia) of a polypeptide (I), is new. (Ia) has two or more heterologous membrane binding elements which are capable of interacting, independently and with thermodynamic additivity, with membrane components of the organ exposed to extracellular perfusion fluids, and a flush storage solution.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the preparation of (P), comprising:

(a) expressing DNA encoding the polypeptide portion of the derivative in a recombinant host cell;

(b) post-translationally modifying the polypeptide to chemically introduce the membrane binding elements to form the derivative;

(c) recovering the derivative; and

(d) mixing the derivative with the flush storage solution.

ACTIVITY - Antiinflammatory; immunosuppressive; vasotropic. The immunosuppressive activity of (P) was tested in rats. The kidney of a recipient rat was removed and the donor kidney positioned in its place. The segment of aorta used to enable perfusion of the organ was removed and the renal artery cut to an appropriate length. The donor and recipient artery, vein and ureter were joined end-to-end by standard microvascular surgical techniques returning blood flow to the donor organ and allowing urine drainage. To evaluate the effect of compounds within the organ, perfused **transplanted** organs were removed at various time point post-**transplantation**, portions of which were either frozen at 196 deg. C or fixed in a 4 % formaldehyde solution in saline. Section of frozen tissues 4 micro m thick were stained with a mouse anti-rat-C5b-9 neoantigen antibody and visualized with an anti-mouse Ig antibody conjugated to fluoroscein isothiocyanate (FITC). Formal/saline fixed tissues were processed and embedded in paraffin wax blocks using standard methods. Sections of these tissues 2 micro m thick were stained. Staining revealed histopathological evidence that organs perfused with the compound at a concentration of 40 micro g/ml had reduced complement activation and reduced tissue injury compared to organs not perfused with membrane-targeted inhibitors of complement activation. Blood samples taken from the tail tip of recipients of perfused and **transplanted** donor kidneys at each day post **transplant** were analyzed for **urea** nitrogen content as a marker of renal function using a commercially available kit. Data from analysis of the samples gave evidence that organs perfused with the compound had improved renal function post **transplantation** during the first week post-**transplantation**.

MECHANISM OF ACTION - Complement activation inhibitor; cytotoxic T lymphocyte activity inhibitor.

USE - (P) is used for preparing an **organ** prior to **transplantation** or **storage** and for prevention, treatment or amelioration of a disease or disorder associated with inflammation, inappropriate complement activation or inappropriate activation of coagulant or thrombotic processes prior to, during or after **transplantation** or **storage** of an **organ** (claimed). The **organ** prepared by the method is also used for preventing, treating or ameliorating the conditions (claimed). (P) is useful for treating hyperacute and acute **allograft** rejection of **transplanted** organs such as kidney, heart, liver or lungs, ischemia-reperfusion injury in **transplanted** organs, **xenograft** rejection and corneal graft rejection.

ADVANTAGE - The perfused agent is capable of protecting an organ such as the kidney or an engineered tissue from complement attack without the need for expression of the protectant molecule in a transgenic animal or through gene therapy.

DESCRIPTION OF DRAWING(S) - The figure shows blood **urea** nitrogen (BUN) data in DA-DA renal isograft recipients at 2 weeks post

transplant.
Dwg.1/1

L25 ANSWER 4 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-430967 [37] WPIDS
DNC C2000-130852
TI Solution used for maintaining and preserving organs for **transplantation** into patients contains pyruvate.
DC A96 D22 E13
IN CHAVEZ, C; FRABLE, R A; GUNAWARDHANA, L; MORGAN, R L
PA (ABBO) ABBOTT LAB
CYC 21
PI WO 2000030442 A1 20000602 (200037)* EN 23p
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP
AU 2000019222 A 20000613 (200043)
ADT WO 2000030442 A1 WO 1999-US27988 19991124; AU 2000019222 A AU 2000-19222 19991124
FDT AU 2000019222 A Based on WO 200030442
PRAI US 1998-199541 19981125
AB WO 200030442 A UPAB: 20000807
NOVELTY - An **organ preservation** solution comprises pyruvate having a concentration of at least 25 mM in the solution.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of preserving an organ comprising:
(a) providing an **organ preservation** solution containing at least 25 mM pyruvate and
(b) placing the organ to be preserved in contact with the solution.
USE - For maintaining and preserving organs for **transplantation** into patients, particularly after they have been isolated or explanted from the circulatory system of the donor and prior to implantation in the recipient.
ADVANTAGE - The solution extends the **preservation** or viability of a variety of **organs** intended for **transplantation.**
Dwg.0/0

L25 ANSWER 5 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-363437 [31] WPIDS
CR 1998-583207 [49]; 1998-593980 [50]; 2000-237123 [20]; 2000-364411 [30]
DNC C2000-109730
TI Preserving biological materials such as platelets, platelet membranes and red-blood cells comprises contacting the materials with preservative solution of betaine, sodium citrate and sodium chloride (NaCl), cooling and drying.
DC B04 C03 D16 D22 E19
IN WIGGINS, P M
PA (BIOS-N) BIOSTORE NEW ZEALAND LTD
CYC 1
PI US 6040132 A 20000321 (200031)* 16p
ADT US 6040132 A CIP of US 1996-662244 19960614, CIP of US 1996-722306 19960930, CIP of US 1997-842553 19970415, CIP of US 1997-989470 19971212, CIP of US 1998-60770 19980415, US 1998-85334 19980526
FDT US 6040132 A CIP of US 5827640, CIP of US 5879875, CIP of US 5962213
PRAI US 1998-85334 19980526; US 1996-662244 19960614; US 1996-722306 19960930; US 1997-842553 19970415; US 1997-989470 19971212; US 1998-60770 19980415
AB US 6040132 A UPAB: 20000630
NOVELTY - Methods for preservation of biological materials selected from platelets, platelet membranes and red-blood cells, are new.

DETAILED DESCRIPTION - Methods for preservation of biological materials selected from platelets, platelet membranes and red-blood cells, are new and comprise:

(1) contacting the biological material with a preservative solution containing betaine, sodium citrate and NaCl, which is substantially isotonic with the biological material and substantially free of **iodine**, dihydrogen phosphate, bicarbonate, nitrate and bisulfate;

(2) cooling the biological material to less than about neg. 140 deg. C; and

(3) drying the biological material to produce freeze-dried material.

USE - The methods are used to preserve biological materials such as platelets, platelet membranes and red-blood cells (claimed). They are used for lyophilization of living biological materials for use in clinical and veterinary applications where living materials including cells, tissues and organs, are harvested and stored in vitro for a period of time before use such as in whole blood **transplants**, bone marrow **transplants**, **organ storage** and **transplants**, embryo transfer, artificial insemination, in vitro fertilization, skin grafting, **storage** of **tissue** biopsies for diagnostic purposes, and **storage** of cell lines for experimental use in hospital, industrial, university and other research laboratories.

ADVANTAGE - The freeze-dried products can be stored in an inactive, desiccated state at room temperature for extended periods of time with minimal loss of biological activity. The methods are less complex that prior-art methods, thus reducing costs and increasing the ease of use and availability of preservation procedures. The compositions used are of low toxicity, resulting in fewer negative side-effects when biological materials, such as platelets, are returned to a patient.

DESCRIPTION OF DRAWING(S) - Percentage of thrombin-activated aggregation over time of reconstituted platelets following lyophilization in solutions of sodium citrate with varying concentrations of betaine and NaCl.

Dwg.8C/8

L25 ANSWER 6 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-292702 [25] WPIDS
DNC C2000-088360
TI Use of nanocell product for solubilization of lipophilic substances in culture media, especially for **storage** of **transplant organs**.
DC A96 A97 B04 C06 D16
IN BIESALSKI, H K; SUPERSAXO, A W; WEDER, H G; WEDER, M A
PA (VESI-N) VESIFACT AG
CYC 89
PI WO 2000015763 A1 20000323 (200025)* DE 43p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 9954053 A 20000403 (200034)
EP 1112346 A1 20010704 (200138) DE
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
ADT WO 2000015763 A1 WO 1999-CH420 19990908; AU 9954053 A AU 1999-54053 19990908; EP 1112346 A1 EP 1999-939894 19990908, WO 1999-CH420 19990908
FDT AU 9954053 A Based on WO 200015763; EP 1112346 A1 Based on WO 200015763
PRAI CH 1998-1863 19980914

AB WO 200015763 A UPAB: 20000524
NOVELTY - The use of nanocells comprising a membrane-forming molecule (a) , a co-emulsifier (b) and a lipophilic component (c) in culture media is new.
DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is also included for the culture media containing the nanocells.
USE - The nanocells are used to solubilize lipophilic substances in culture media which are useful (claimed) for the following:
in vitro cultivation and investigation of cells, fungi, bacteria, viruses, bacteriophages, insects and plants;
in vitro or ex vivo cultivation and investigation of tissue and organs;
(1) freezing of organs, tissue, cells, fungi, bacteria, viruses, bacteriophages, insects and plants;
(2) transfer of organs, tissue and embryos;
(3) therapy (adoptive immune therapy; cancer treatment);
(4) organ perfusion;
(5) **storage** of **transplant organs**;
(6) cytogenetic, molecular genetic, pharmacological, toxicological and metabolic studies;
(7) uptake and transport studies; and
(8) investigation of functional and regulatory mechanisms.
The media are especially suitable for use in the **storage** of **transplant organs**.
ADVANTAGE - The nanocells facilitate the incorporation in culture media of substances which are insoluble or difficult to solubilize in water without negatively influencing the cells or other biological systems in conjunction with which the media are used. Also, in contrast to conventional solubilizers, the nanocells have a physiological form which makes them readily usable under in vivo conditions. Further, they have a high loading capacity and good stability in culture media.
Dwg.0/5

L25 ANSWER 7 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-518488 [43] WPIDS
DNC C1999-151366
TI Preserving collagen-based tissues.
DC D22 E19
IN BOERBOOM, L E; COLEMAN, C L; GRIFFEY, E S; LIVESEY, S A
PA (LIFE-N) LIFECELL CORP
CYC 85
PI WO 9941981 A1 19990826 (199943)* EN 35p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9927753 A 19990906 (200003)
EP 1056335 A1 20001206 (200064) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 9941981 A1 WO 1999-US3667 19990219; AU 9927753 A AU 1999-27753 19990219; EP 1056335 A1 EP 1999-908285 19990219, WO 1999-US3667 19990219
FDT AU 9927753 A Based on WO 9941981; EP 1056335 A1 Based on WO 9941981
PRAI US 1998-75472P 19980220
AB WO 9941981 A UPAB: 19991020
NOVELTY - A process for preserving collagen-based tissues comprises treating tissue in **detergent** solution, enzyme solution and to prevent/inhibit molecular crosslinking of processed tissues via Maillard reaction or via oxidative species or formation and propagation of

molecular free radicals and cryopreserving tissue.

DETAILED DESCRIPTION - A process of preserving collagen-based tissues comprises:

(a) procuring the tissue; treating the tissue in a **detergent** solution;

(b) treating the tissue in an enzyme solution;

(c) treating the tissue to prevent/inhibit molecular crosslinking of the processed tissues via Maillard reaction and formation of advanced glycosylation products;

(d) treating the tissue to prevent/inhibit the molecular crosslinking of processed tissues via reactive oxidative species of molecules;

(e) treating the tissue to prevent/inhibit the molecular crosslinking of the processed tissues via the formation/propogation of molecular free radicals;

(f) treating the **tissue** in a **cryopreservation** solution; and cryopreserving the **tissue.**

INDEPENDENT CLAIMS are also included for:

(1) A process of preserving collagen-based tissues for **transplantation,** the process comprises:

(a) procuring the tissue from a donor;

(b) immersing the tissue in a first **detergent** solution including a **detergent** and chloride ion for solubilizing lipid membranes and proteins, a divalent cation chelator to inhibit protease activity;

(c) immersing the tissue in a first vitrification solution maltodextrin (VSMD) including polymers of polyhydroxy compounds having low Maillard reaction potential, a divalent cation chelator and buffer;

(d) immersing the tissue in a second **detergent** solution including **detergent,** a divalent cation chelator, an antimicrobial, an antifungal, an antioxidant and a free radical scavenger;

(e) immersing the tissue in an enzyme solution including DNaseI, deferoxamine, phytic acid and aminoguanidine;

(f) immersing the tissue in a second VSMD including polymers of polyhydroxy compounds having low Maillard reaction potential, and a divalent cation chelator;

(g) cooling the tissue at a rate and temperature such that the formation of ice crystals is prevented; and

(h) drying the cooled tissue by molecular distillation drying;

(2) the product of above process;

(3) a process for preserving collagen based tissues for **transplantation,** then process comprising:

(a) procuring the tissue from a donor; immersing the tissue in a first **detergent** solution, the components of the solution solubilizing lipid membranes and proteins and inhibit protease activity;

(b) immersing the tissue in a first VSMD, the components of VSMD promoting solubilization of cellular proteins by enhancing **detergent** entry into the tissue via osmotic changes and provide carbohydrates to enhance the solubility of cellular proteins and inhibit proteolytic activity;

(c) immersing the tissue in a second **detergent** solution, components of the second solution disrupting and solubilizing cellular membranes and antigenic components; immersing the tissue in an enzyme solution, the components of the solution disrupting and solubilizing the cell nucleus and cell phospholipids and reducing non-enzymatic crosslinking of the tissue;

(d) immersing the tissue in a second VSMD, the components of the second VSMD promoting the solubilization of cellular proteins by enhancing **detergent** entry into the tissue via osmotic changes and providing carbohydrates to enhance the solubility of cellular proteins, inhibiting proteolytic activity and infiltrating the tissue with a cryoprotectant;

(e) cooling the tissue at a rate and to a temperature such that differing phases of frozen water are formed and formation of ice crystals is prevented; drying the cooled tissue by the sequential removal of each phase of frozen water under conditions such that water is removed from the sample without appreciable ice crystal growth, ice crystal formation or melting;

(4) a process for preserving a heart valve or vascular tissue for **transplantation**, the process comprising:

(a) procuring the heart valve or tissue from a donor;

(b) immersing the heart valve or tissue in a first **detergent** solution, the solution including a t-octylphenoxypolyethoxyethanol and NaCl for solubilizing lipid membranes and proteins, ethylene diamine tetraacetate (EDTA) and a buffer;

(c) immersing the valve or tissue in a first VSMD including maltodextrin having low Maillard reaction potential, EDTA and a buffer;

(d) immersing the valve or tissue in a second detergent solution including n-octyl-beta-D-glucopyranoside, EDTA, deferoxamine, phytic acid, and aminoguanidine in degassed cell culture media;

(e) immersing the valve or tissue in an enzyme solution including DNasel, deferoxime, phytic acid, aminoguanidine and a buffer;

(f) immersing the valve or tissue in a second VSMD including maltodextrin having low Maillard reaction potential, EDTA and a buffer;

(g) cooling the valve or tissue as above to give a frozen valve; and drying the valve or tissue by molecular distillation drying;

(5) A process for preserving a collagen based nerve tissue for transplantation, the process comprising:

(a) procuring the tissue form a donor; immersing the tissue in a stabilization solution;

(b) immersing the tissue in a first detergent solution, the solution including a n-octyl-beta-D-glucopyranoside and NaCl for solubilizing lipid membranes and proteins, ethylene diamine tetraacetate (EDTA) and a buffer;

(c) washing the tissue with a wash solution including EDTA and buffer; immersing the tissue in a second detergent solution including octanoic acid, a sodium phosphate buffer and optionally antibiotics;

(d) immersing the valve in an enzyme solution including DNasel, NaCl and MgCl2 and a buffer;

(e) immersing the tissue in a first VSMD including maltodextrin having a low Maillard reaction potential, EDTA and a buffer;

(f) cooling the tissue as above to give a frozen valve; and

(g) drying the frozen tissue by molecular distillation drying.

USE - The process is useful for preserving collagen based tissues including heart valve, vascular grafts, umbilical vessels, nerves, dura, dermis etc.

Dwg.0/0

L25 ANSWER 8 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-429046 [36] WPIDS
CR 1999-287145 [24]
DNC C1999-126405
TI Medium for preserving tissue for **autotransplantation**.
DC D22 E19 E24
IN GOLDSTEIN, M; LI, P S; SCHULSINGER, D A
PA (CORR) CORNELL RES FOUND INC
CYC 1
PI US 5925510 A 19990720 (199936)* 4p
ADT US 5925510 A Provisional US 1996-27910P 19961011, Provisional US 1996-27935P 19961011, US 1997-946936 19971008
PRAI US 1997-946936 19971008; US 1996-27910P 19961011; US 1996-27935P 19961011
AB US 5925510 A UPAB: 19990908

NOVELTY - A medium for preserving tissue for **autotransplantation** without tissue culturing occurring is new.

DETAILED DESCRIPTION - A medium, having a pH range of 7.0 - 7.8, for preserving tissue is claimed which comprises:

(a) 80 - 120 (especially 102) mM NaCl;
(b) 3 - 6 (especially 4.7) mM KCl;
(c) 0.1 - 0.3 (especially 0.2) mM MgSO4.7H2O;
(d) 1 - 3 (especially 2) mM CaCl2.2H2O;
(e) 0.2 - 0.6 (especially 0.5) mM NaH2PO4;
(f) 1.5 - 4 (especially 2.8) mM glucose;
(g) 15 - 25 (especially 21) mM sodium lactate;
(h) 0.2 - 0.6 (especially 0.4) mM sodium pyruvate;
(i) 0.01 - 0.05 (especially 0.02) mM **phenol** red;
(j) 0.1 - 0.4 (especially 0.2) mM L-glutamine;
(k) 2 - 35 (especially 4) mM sodium bicarbonate;
(l) 125 - 200 (especially 150) U/ml penicillin-G;
(m) 40 - 60 (especially 50) micro /ml streptomycin sulphate, and
(n) a vehicle consistent with **tissue preservation**

USE - The medium is useful for **autotransplantation** of tissues taken from e.g. the urinary tract, the vascular system, or the buccal cavity for the treatment of hypospadias.

ADVANTAGE - The use of the solution helps to overcome the problem of urethrocutaneous fistulas which are thought to arise as a result of inadequate **preservation** of grant **tissue**, especially where the graft comprises extra-genital tissue.

Dwg.0/0

L25 ANSWER 9 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-277592 [23] WPIDS
DNN N1999-208073 DNC C1999-081627
TI Human phospholipid scramblase, its mutants and inhibitors - used e.g. to prolong graft survival, to treat sickle cells disease, thrombosis, autoimmune disease etc.
DC B04 D16 P14
IN SIMS, P J; WIEDMER, T
PA (BLOO-N) BLOOD CENT RES FOUND
CYC 22
PI WO 9919352 A2 19990422 (199923)* EN 98p
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP
AU 9927019 A 19990503 (199937)
EP 1030866 A2 20000830 (200042) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 9919352 A2 WO 1998-US20535 19981001; AU 9927019 A AU 1999-27019 19981001; EP 1030866 A2 EP 1998-950802 19981001, WO 1998-US20535 19981001
FDT AU 9927019 A Based on WO 9919352; EP 1030866 A2 Based on WO 9919352
PRAI US 1997-949246 19971010
AB WO 9919352 A UPAB: 19990616

NOVELTY - Preparation of phospholipid scramblase (I) of about 35 kD, as measured by 12.5% sodium **dodecylsulfate**-polyacrylamide gel electrophoresis inder reducing conditions.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (a) recombinant DNA (II) encoding (I); (b) protein (Ia) encoded by (II); (c) animal genetically altered to eliminate expression of (I) in all germ line cells; (d) inhibiting expression of the coagulant properties of the plasma membrane of a cell by expressing, in the membrane, a mutant (I) with reduced activation of transmembrane movement of plasma membrane phospholipids (PLs); (e) inhibiting cellular (I) by delivering an agent (III) that (i) prevents thioacylation of (I) or (ii) prevents binding of

intracellular calcium; (f) modifying activitity of cellular (I) by delivering an agent (IIIa) that prevents phosphorylation of (I); (g) prolonging graft survival of **transplanted** organs or grafts by delivering, to an **organ** perfusate during in vitro **storage**, (i) a (I) modified at one of positions T161, D273-D284 or C297 of the human enzyme, or equivalent positions in other (I) or (ii) a compound that preve nts post-translational modification of these residues; (h) prolonging in vivo survival of circulating blood cells by delivering the same modified enzymes or compounds as in (g), to prevent expression of phosphatidylserine on the plasma membrane surface of the cells; (j) preventing procoagulant properties of erythrocytes in sickle cells disease by administered modified enzymes of (g); and (k) treating autoimmune disease, thrombotic, thromboembolic or inflammatory diseases by administering modified enzymes or compounds of (g).

USE - Mutant forms of (I) with reduced ability to mediate transmembrane movement of plasma membrane phospholipids are used to inhibit expression of coagulant properties of the plasma membrnae of cells (particularly in a tissue or organ). These mutants, or inhibitors of (I), are used to prolong survival of **transplanted** organs or cells; to promote in vivo survival of circulating blood cells; to prevent procoagulant properties of erythrocytes in sickle cell disease; and to treat autoimmune, thrombotic, thromboembolic and inflammatory diseases (specifically disseminated intravascular coagulation, vascular or heparin-associated thrombosis, generation of fibrin during cardiopulmonary by-pass procedures, rheumatoid arthritis, systemic lupus erythematosus, thrombotic thrombocytopenic purpura and organ **transplant** rejection. Inhibitors of (I) are also added to stored blood cells. Quantitation of expression of (I) is used to identify subjects with reduced/increased capacity for platelet- o r erythrocyte-promoted fibrin clot activity (in standard immunoassays or polymerase chain reactions). Antithrombotic; anti-inflammatory; thrombostatic. Mediation of calcium-dependent trans-bilayer transport of membrane phospholipids.

ADVANTAGE - Cells and organs for **transplantation** that express the mutants of (I) have improved in vivo survival or circulation times, and reduced tendency to form fibrin clots or vascular thrombosis. Dwg.0/0

L25 ANSWER 10 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1998-310493 [27] WPIDS
DNN N1998-243369 DNC C1998-095586
TI Preparing ophthalmological **transplant** materials - comprises washing and degreasing cadaver tissues, alkaline and acid hydrolysis, immersion in hydrogen **peroxide**, and storage in alcohol.
DC D22 P32
IN AZNABAEV, M T; ENIKEEV, D A; LOBANOV, S A
PA (UFEY-R) UFA EYE DISEASES RES INST
CYC 1
PI RU 2094033 C1 19971027 (199827)* 4p
ADT RU 2094033 C1 RU 1994-28199 19940727
PRAI RU 1994-28199 19940727
AB RU 2094033 C UPAB: 19980709
Ophthalmological **transplant** material is prepared in a method which comprises washing allogen cadaver tissues, degreasing in surfactant, alkaline hydrolysis, immersion in surfactant, acid hydrolysis, another immersion in surfactant and treatment with a solution comprising at least 6% hydrogen **peroxide**. A final immersion in 70% alcohol used as preserving agent, completes the treatment.

USE - The material is used in ophthalmology for plastic surgery to the iris.

ADVANTAGE - The material which is inert, causes no inflammatory or

allergic reactions and its use enables the formation of differentiated structures in newly formed tissues.
Dwg.0/0

L25 ANSWER 11 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-401882 [37] WPIDS
CR 1994-100362 [12]
DNC C1997-129611
TI Aqueous solutions containing phosphate, citrate and calcium ions - for e.g. **storage** of corneal or **organ transplants**, irrigation or topical application.
DC A96 B05 D22
IN CHEN, C; CHEN, S C
PA (CHEN-I) CHEN C; (CHEN-I) CHEN S C
CYC 1
PI US 5654266 A 19970805 (199737)* 8p
ADT US 5654266 A CIP of US 1992-833027 19920210, US 1994-218109 19940328
FDT US 5654266 A CIP of US 5298487
PRAI US 1994-218109 19940328; US 1992-833027 19920210
AB US 5654266 A UPAB: 19970915
The following are claimed: (1) an isotonic aqueous composition comprising 5-30 mM sodium DL- beta -hydroxybutyrate, 1.5-6.0 mM Na2HPO4, 0.3-1.2 mM NaH2PO4, 1.2-7.2 mM sodium citrate and 0.5-2.0 mM CaCl2; where HPO42-, Ca2+ and citrate are kept at a defined ratio, where the product of [HPO42-] [Ca2+] ranges from 1.2 to 3.2; the concentration of citrate ranges from 50-120% the concentration of [HPO42-]; and the ratio [HPO42-]/[H2PO4-] is 5:1; (2) an isotonic aqueous composition consisting of 5-39 mM sodium DL- beta -hydroxybutyrate, 2-10 mM glucose, 5-20 mM sodium glucuronate, 4-15% dextran, full-strength pre-formulated essential amino acids, vitamins and other components (sic, not further defined), 10-50 mM sodium Hepes, 5-20 mM KCl, 60-100 mM NaCl, 1.5-6.0 mM Na2HPO4, 0.3-1.2 mM NaH2PO4, 0.5-1.5 mM MgCl2 and 0.5-2.0 mM CaCl2; (3) a process for preparing a sterile isotonic aqueous solution suitable for use as an irrigating solution, comprising dissolving a composition comprising 5-30 mM sodium DL- beta -hydroxybutyrate, 5-20 mM KCl, 60-100 mM NaCl, 1.5-6.0 mM Na2HPO4, 0.3-1.2 mM NaH2PO4 and 1.2-7.2 mM sodium citrate in deionised, doubly distilled and degassed water, adjusting the pH to 7.3-7.4, adding CaCl2 and MgCl2 to form an isotonic solution with an osmolarity of 290-315 mOsM, readjusting the pH to 7.3-7.4, filtering the solution through a 0.22 mu m membrane, sealing the solution to ensure complete elimination of O2 to protect beta -hydroxy butyrate from oxidation and to extend shelf-life, sterilising the solution by autoclave or showers of super-heated water, and rapidly cooling the solution until any precipitate disappears; (4) the solution produced by the process of (3); (5) a slow-release drug delivery vehicle prepared by thoroughly mixing the composition of (1), medication and polymers selected from dextran, sodium hyaluronate, hydroxypropyl methylcellulose, polyvinyl pyrrolidone and methylcellulose with a molecular mass ranging from 0.5-2 x 106 daltons in amounts sufficient to form a highly viscous solution; (6) an efficient **antibiotics** ointment or cream prepared by combining the composition of (1) and **antibiotics** ointment or cream for external applications suitable for wound healing, which is effective to meet requirements of dermal and ocular tissues for efficient physiological and biochemical functions with concurrent suppression of lactate production and accumulation; (7) an enriched cream or lotion prepared by combining the composition of (1) and a cream or lotion for enhanced dermal care, which is effective to meet requirements of dermal tissues for efficient physiological and biochemical functions with concurrent suppression of lactate production and accumulation; (8) (a) cornea storage medium, and (b) isotonic cornea storage medium, prepared by thoroughly mixing the composition of (1), 10

mM sodium glucuronate, polymers, 30 mM Hepes buffer, and pre-formulated minimum essential aminoacids, vitamins and other components of Medium 199, with the omission of ascorbate and a reduction in NaCl concentration, so that the resulting medium is (a) **hypertonic** in the range from 315 to 380 mOsM or (b) isotonic in the range from 290 to 315 mOsM, has pH 7.1-7.6, and is sterilised by filtration through 0.22 mu m filter membrane; (9) an efficient solution for **storage** and preparation of donor **tissues** for **organ transplantation** and for topical applications prepared by thoroughly mixing the composition of (1), (8a) or (8b) and a synergistically effective mixture of 0.1 mg/ml dialysed foetal bovine retinal extract (as the source of vascular endothelial growth factor), 10 mu M uridine, 0.5 mu M thymidine and 3 mg/ml dialysed foetal bovine serum (as the source of serum-derived factor), by reducing NaCl concentration to adjust osmolarity to the range of 290 to 315 mOsM, and by filtering through a 0.22 mu m filter membrane to sterilise the solution; (10) an isotonic aqueous medical composition suitable for autoclave sterilisation without caramelisation precipitation, comprising 1.5-6.0 mM Na2HPO4, 0.3-1.2 mM NaH2PO4, 1.2-7.2 mM sodium citrate and 0.5-2.0 mM CaCl2, where HPO42-, Ca2+ and citrate are kept at a defined ratio where the product of [HPO42-] [Ca2+] ranges from 1.2 to 3.2; the concentration of citrate ranges from 50-120% the concentration of [HPO42-]; and the ratio [HPO22-]/[H2PO4-] is 5:1; and (11) an isotonic physiologically compatible medical composition containing at least phosphate, calcium ions and alkali metal citrate, where the presence of HPO42-, Ca2+ and citrate ions is at a defined ratio such that the product of [HPO42-] [Ca2+] ranges from 1.6 to 3.2; and the concentration of citrate ranges from 50% to 120% the concentration of [HPO42-]; thereby preventing caramelisation and precipitation when autoclaved.

USE - The compositions are useful as a rich energy source for isolated tissue and for peripheral tissue under surgery with concurrent suppression of lactic acid formation and accumulation in the cells. They are especially used for **storage**, irrigation and rinsing of corneal and **organ transplants**; and in drug delivery vehicles.

Dwg.0/0

L25 ANSWER 12 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-387432 [36] WPIDS
DNC C1997-124399
TI New bis-(benzoyl-guanidine) compounds - useful for treatment of coronary infarct, ischaemia, shock state and cell proliferative diseases, and especially arrhythmia.
DC B05 D22
IN ALBUS, U; BRENDEL, J; KLEEMAN, H; LANG, H J; SCHOLZ, W; SCHWARK, J; WEICHERT, A; KLEEMANN, H; WICHERT, A; KLEMANN, H
PA (FARH) HOECHST AG
CYC 31
PI EP 787717 A1 19970806 (199736)* DE 29p
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE SI
DE 19603425 A1 19970807 (199737) 14p
AU 9712390 A 19970807 (199740)
NO 9700406 A 19970801 (199741)
JP 09221465 A 19970826 (199744) 17p
ZA 9700770 A 19970923 (199744) 47p
CA 2196388 A 19970801 (199749)
NZ 314145 A 19971124 (199802)
HU 9700277 A2 19971028 (199815)
SK 9700127 A3 19980204 (199818)
CZ 9700271 A3 19980513 (199825)
BR 9700817 A 19980707 (199834)

KR 97059165 A 19970812 (199837)
MX 9700781 A1 19980101 (199952)
TW 430642 A 20010421 (200158)

ADT EP 787717 A1 EP 1997-100776 19970120; DE 19603425 A1 DE 1996-19603425 19960131; AU 9712390 A AU 1997-12390 19970129; NO 9700406 A NO 1997-406 19970130; JP 09221465 A JP 1997-16046 19970130; ZA 9700770 A ZA 1997-770 19970130; CA 2196388 A CA 1997-2196388 19970130; NZ 314145 A NZ 1997-314145 19970129; HU 9700277 A2 HU 1997-277 19970129; SK 9700127 A3 SK 1997-127 19970129; CZ 9700271 A3 CZ 1997-271 19970129; BR 9700817 A BR 1997-817 19970130; KR 97059165 A KR 1997-3012 19970131; MX 9700781 A1 MX 1997-781 19970130; TW 430642 A TW 1997-100957 19970129

PRAI DE 1996-19603425 19960131

AB EP 787717 A UPAB: 19970909

Diaryl dicarboxylic acid diguanidines of formula (I) and their salts are new. One of R1-R5 and one of R6-R10 = CON=C(NH2)2; of the others, R1, R5, R6, R10 = H, 1-4C alkyl, F, Cl, OR32, NR33R34 or CF3; R32-R34 = H or 1-4C alkyl; R2, R4, R7, R9 = H, F, Cl, Br, I, OH, CN, CF3, CON=C(NH2)2, 1-8C alkyl, 2-8C alkenyl, (CH2)mR14, pyrrol-(1, 2 or 3)-yl (optionally mono- to tetra-substituted by F, Cl, Br, I, CN, 2-8C alkanoyl, 2-8C alkoxycarbonyl, formyl, carboxy, CF3, methyl or methoxy), SO2R22, CONR23R24, COR28, SO2N(R29)R30, OR35 or N(R35)R36; m = 0-2; R14 = 3-8C cycloalkyl or phenyl (optionally mono- - tri-substituted with F, Cl, CF3, methyl, methoxy or N(R15)R16); R15, R16, R23, R24, R29, R30 = H or CH3; R22, R28 = methyl or CF3; R35, R36 = H or 1-6C alkyl; or R35+R36 = 4-7 methylene (optionally with one group substituted by O, S, NH, NCH3 or N-benzyl); R3 = H, SR25, OR25, N(R25)R26, C(R25)(R26)R27; R25 = H, 1-8C alkyl, phenyl (optionally mono- to tri-substituted with F, Cl, CF3, CH3, methoxy, hydroxy, amino, methylamino or dimethylamino), or 1-9C heteroaryl (optionally mono- to tri-substituted by F, Cl, CF3, CH3, OMe, OH, NH2, NHCH3, N(CH3)2); R26, R27 = as R25, or H or 1-8C alkyl; A = bond, N(R11)CO, N(R12)CON(R13), N(R17)CON(R18)SO2, N(R19)SO2, SO2, SO2N(R19)CO, OCON(R19)SO2 or C(R20)=C(R21); and R11 - R21 = H or 1-8C alkyl.

USE - (I) are useful for treatment of ischaemic conditions (including ischaemia of the heart, peripheral nervous system, central nervous system, peripheral organs and limbs, and stroke), arrythmia, cardiac infarct, angina pectoris, shock, disease states caused primarily or secondarily by cell proliferation (including late diabetic complications, cancer, fibrosis of the lung, liver or kidney, prostatic hyperplasia, and atherosclerosis), in surgical operations and **organ transplants** and for **storage** and **preservation** of **organs** for **transplant** (claimed). (I) are also useful for prevention of high blood pressure and as diagnostics for **hypertonic** state, atherosclerosis, diabetes and proliferative diseases.

Administration may be oral, parenteral, intravenous, rectal or by inhalation. Dosage is 0.001 - 10 preferably 0.01- 1 mg/kg.

ADVANTAGE - (I) have improved solubility in water, making them especially suited to intravenous administration.

Dwg.0/0

L25 ANSWER 13 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-331114 [30] WPIDS
DNC C1997-106183
TI Preparation for preserving biological tissues for **transplanting** - contains potassium **hydroxide**, heparin, polyethylene glycol, additional purified soya oil and glycerin, and water.
DC A25 A96 B04 D22
IN OSTROVSKII, A I
PA (OSTR-I) OSTROVSKII A I
CYC 1

PI RU 2069952 C1 19961210 (199730)* RU 3p
ADT RU 2069952 C1 RU 1993-6565 19930203
PRAI RU 1993-6565 19930203
AB RU 2069952 C UPAB: 19970723
Addition of purified soya oil (I) and glycerin (II) to the mixture for preserving biological tissues for **transplanting**, improves its properties. The mixture contains (in wt.%): potassium **hydroxide**, 0.02-0.03, heparin 0.09-0.1, polyethylene glycol of mol.wt. 1500 55-60, (I) 4.5-5, (II) 22.5 and distilled water the rest.
USE - **Preservation** of **tissues** for **transplanting**.
ADVANTAGE - Better protection from the action of heat, increased extra- and intracellular hydrophobic and dehydration effects, suppression of proteolysis.
Dwg.0/0

L25 ANSWER 14 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-194854 [18] WPIDS
CR 1997-194853 [18]
DNC C1997-062292
TI New antiarrhythmic benzoyl-guanidine derivs. without salidiuretic side effects - for treating arrhythmia, heart infarction, angina pectoris, ischaemic conditions, stroke and shock, for **organ preservation** and to diagnose hypertonia and proliferative diseases.
DC B05 D22 E13 E14
IN ALBUS, U; BRENDEL, J; KLEEMANN, H; LANG, H; SCHOLZ, W; SCHWARK, J; WEICHERT, A
PA (FARH) HOECHST AG
CYC 17
PI EP 765868 A1 19970402 (199718)* DE 16p
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
ADT EP 765868 A1 EP 1996-114800 19960916
PRAI EP 1995-115240 19950927
AB EP 765868 A UPAB: 19970502
Benzoyl-guanidine derivs. of formula (I) and their salts are new. At least one of R1-R3 = R6C(OH)2-, where R6 = 1-3C perfluoroalkyl; the other R1-R3 gps. = H, OH, F, Cl, Br, I, 1-6C alkyl, 3-6C cycloalkyl, 1-4C alkoxy, phenoxy (which is opt. substd. by 1-3F, Cl, CH3 or OCH3 gps.), alkyl-SOx, -CR7=CR8R9, -C triple bond CR9, -SR10, -OR10 or CR10R11R12; or R1-R3 = phenyl, 1-4C alkylphenyl, naphthyl, biphenylyl, quinolinyl, isoquinolinyl or imidazolyl all opt. substd. by 1-3 F, Cl, CF3, CH3, OCH3, OH, NH2, methylamino or dimethylamino gps.; x = 0-2; R7 = H or CH3; R8,R9 = H, 1-4C alkyl, 3-8C cycloalkyl, or phenyl (opt. substd. by 1-3F, Cl, CH3 or OCH3 gps.); R10 = -CfH2f-(3-8C cycloalkyl), or quinolinyl, isoquinolinyl, pyridinyl, imidazolyl or phenyl all opt. substd. by 1-3 F, Cl, CF3, Me, OMe, OH, NH2, methylamino or dimethylamino gps. f = 0-2; R11, R12 = as R10, or can be H or 1-4C alkyl; R4, R5 = H, 1-3C alkyl, F, Cl, Br, I, CN, OR13, NR14R15 or -(CH2)n-(CF2)o-CF3; R13-R15 = H or 1-4C alkyl; n = 0 or 1; o = 0-2.
USE - (I) are useful for treatment of arrhythmia and prevention and treatment of heart infarction, angina pectoris, ischaemic heart, peripheral/central nervous and peripheral organ and limb conditions, stroke and shock.
(I) may also be administered to patients undergoing surgery and organ **transplants**, and can be used to preserve and store **transplant** organs.
(I) can also be used to treat diseases associated with cell proliferation, such as atherosclerosis, diabetic complications, cancer, pulmonary, hepatic and renal fibrosis and prostatic hyperplasia.

The cpds. may also be used as Na+/H+ exchange inhibitors, in order to diagnose hypertonia and proliferative diseases (All claimed).

The dose is 0.001-10 (0.01-1) mg/kg per day. For acute conditions such as heart infarction, the dosage can be increased to up to 200 mg/day (sic). Administration is oral, parenteral, rectal or by inhalation.

Dwg.0/0

L25 ANSWER 15 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-101791 [10] WPIDS
DNC C1997-032604
TI New substd. cinnamic acid guanidide derivs. are antiarrhythmics - e.g. useful in treatment of oxygen deficiency conditions e.g. angina pectoris, e.g. E-3-(4-di methylamino-phenyl)-2-methyl-propenoic acid guanidide.
DC B03 B04 B05
IN ALBUS, U; BRENDEL, J; KLEEMANN, H; LANG, H J; SCHOLZ, W; SCHWARK, J; WEICHERT, A; KLEEMANN, H W; SCHWARK, J R; LANG, H; KLEEMAN, H; SCHWARK, J B
PA (FARH) HOECHST AG; (HMRD-N) HMR DEUT GMBH
CYC 32
PI EP 755919 A2 19970129 (199710)* DE 19p
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
DE 19527305 A1 19970130 (199710) 12p
AU 9660668 A 19970130 (199713)
CZ 9602184 A3 19970212 (199713)
NO 9603108 A 19970127 (199714)
JP 09052823 A 19970225 (199718) 14p
CA 2182062 A 19970127 (199722)
ZA 9606313 A 19970430 (199723) 39p
EP 755919 A3 19970409 (199728)
SK 9600965 A3 19970305 (199729)
NZ 299052 A 19971024 (199749)
HU 9602072 A2 19970528 (199803)
KR 97006281 A 19970219 (199810)
MX 9603004 A1 19970101 (199816)
US 5883133 A 19990316 (199918)
AU 704461 B 19990422 (199927)
NO 306060 B1 19990913 (199944)
EP 755919 B1 19991117 (199953) DE
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE SI
DE 59603659 G 19991223 (200006)
ES 2140765 T3 20000301 (200018)
CN 1145899 A 19970326 (200106)
IL 118925 A 20010808 (200157)
SK 282018 B6 20011008 (200163)
ADT EP 755919 A2 EP 1996-111665 19960719; DE 19527305 A1 DE 1995-19527305 19950726; AU 9660668 A AU 1996-60668 19960724; CZ 9602184 A3 CZ 1996-2184 19960724; NO 9603108 A NO 1996-3108 19960725; JP 09052823 A JP 1996-196283 19960725; CA 2182062 A CA 1996-2182062 19960725; ZA 9606313 A ZA 1996-6313 19960725; SK 9600965 A3 SK 1996-965 19960724; NZ 299052 A NZ 1996-299052 19960724; HU 9602072 A2 HU 1996-2072 19960726; KR 97006281 A KR 1996-31743 19960726; MX 9603004 A1 MX 1996-3004 19960725; US 5883133 A US 1996-686999 19960724; AU 704461 B AU 1996-60668 19960724; NO 306060 B1 NO 1996-3108 19960725; DE 59603659 G DE 1996-503659 19960719, EP 1996-111665 19960719; ES 2140765 T3 EP 1996-111665 19960719; CN 1145899 A CN 1996-110200 19960723; IL 118925 A IL 1996-118925 19960724; SK 282018 B6 SK 1996-965 19960724
FDT AU 704461 B Previous Publ. AU 9660668; NO 306060 B1 Previous Publ. NO 9603108; DE 59603659 G Based on EP 755919; ES 2140765 T3 Based on EP 755919; SK 282018 B6 Previous Publ. SK 9600965
PRAI DE 1995-19527305 19950726

AB EP 755919 A UPAB: 19970307
Substd. cinnamic acid guanidides of formula (I) and their salts are new: at least one of R1-R5 = XaYbLnU; X = CR16R17, O, S or NR18; a = 0-1; Y = 1-8C alkenyl, 1-8C alkenyl-T, 1-8C alkenyl-T2; T = NR20, O, S or phenyl (opt. substd. by 1-3 F, Cl, CF3, CH3, OCH3 or NR21R22); b = 0-1; L = O, S, NR23 or CkH2k; k = 1-8; n = 0-1; U = NR24R25 or 1-9C N-heterocycle with a N- or C- bridge and opt. substd. by 1-3 F, Cl, CF3, CH3, OCH3 or NR27R28; R24, R 25 = H, 1-8C alkyl or 1-8C perfluoroalkyl; or R24+R25 = (CH2)x with one CH2 opt. replaced by O, S, NH, NMe or N-benzyl; the remaining R1-R5 = H, F, Cl, Br, I, CN, OnCmH2m+1, Op(CH2)sCqF2q+1 or CrH2rR10; m = 0-8; p = 0-1; q = 1-8; s, r = 0-4; R10 = 3-8C cycloalkyl or phenyl opt. substd. by 1-3 F, Cl, CF3, CH3, OCH3 or NR11R12; R6, R7 = H, F, Cl, Br, I, CN, 1-8C alkyl, 1-8C perfluoroalkyl, 3-8C cycloalkyl, phenyl substd. by 1-3 F, Cl, CF3, CH3, OCH3 or NR14R15; and R11, R12, R14-R18, R20-R23, R27 and R28 = H, 1-4C alkyl or 1-4C perfluoroalkyl.
USE - (I) are useful as antiarrhythmics for treatment or prevention of conditions arising from oxygen deficiency, e.g. angina pectoris, heart attacks, coronary ischaemia or infarction, peripheral and central nervous system ischaemia, stroke, ischaemia of peripheral organs and limbs, shock and in surgery, **organ transplants**, conservation and **storage** of **transplant** material. They are also useful in conditions of cell proliferation such as atherosclerosis, for treatment of late diabetic complications, cancerous conditions and fibrosis of the lung, kidney and liver. (I) are also useful in the treatment of prostatic hyperplasia and useful as a diagnostic Na+/H+ exchange inhibitors for diagnosis of **hypertonic** state and proliferative diseases.
Dwg.0/0

L25 ANSWER 16 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1996-341539 [34] WPIDS
CR 1998-158350 [12]
DNC C1996-108439
TI Enhancing intracellular phosphorylation potential by admin of alpha-keto acid salt e.g. sodium pyruvate - used in e.g. parenteral feeding solns., kidney dialysis solns., blood substitutes, cardioplegic solns., for treatment of e.g. cardiac ischaemia, metabolic acidosis, diabetic coma or asthma.
DC B05 D21 E19
IN BUNGER, R
PA (USSA) US SEC OF ARMY
CYC 1
PI US 5536751 A 19960716 (199634)* 13p
ADT US 5536751 A US 1994-239635 19940509
PRAI US 1994-239635 19940509
AB US 5536751 A UPAB: 19980406
Method for enhancing the intracellular phosphorylation potential of a mammal to prevent deterioration or promote restoration and preservation of normal cell functions comprises admin. of a pharmaceutical compsn. contg. an alpha-keto acid salt of formula R-CO-COOM (I), where: R = opt. substd. 1-12C alkyl; 3-10C cycloalkyl; 2-6C alkenyl; 3-6C alkynyl; benzyl (opt. alpha-substd. by Me or Ph or ring-substd. by methyl, dimethyl, halo, dihalo or ethoxy), adamantyl; or phenyl or naphthyl opt. substd. by 1-3 of 1-4C alkyl, halogen, 1-4C alkoxy, OPh, trihalomethyl, dimethylamino or diethylamino; M = a cation.
USE - According to the disclosure, (I) can be used in parenteral feeding solns., kidney and peritoneal dialysis solns., blood vol. and plasma expanders, blood substitutes, vitamin supplements, cardioplegic solns., oral rehydration fluids, topical compsns. (e.g. soaps, shampoos, sunscreens and dentifrices), **antibiotic** or antiinflammatory drug formulations for treating skin disorders, bronchodilator drug formulations

for treating asthma or bronchopulmonary dysplasia, organ perfusion solns., cell cultures and foods. Contemplated clinical applications include cardiac ischaemia, reperfusion injury, post-surgical stunned myocardium, metabolic acidosis, diabetic ketoacidosis/coma, various forms of shock, haemosiderosis, strenuous exercise, acute sickle cell crisis, kidney dialysis, **organ preservation** and **transplantation**, emergency resuscitation and asthma.
Dwg.0/0

L25 ANSWER 17 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1994-217396 [26] WPIDS
CR 1994-217395 [26]
DNC C1994-098835
TI Cryoprotective solns. for cryo **preservation** of **organs** for **transplants** - comprise polyethylene glycol(s) and crosslinker agent(s).
DC A96 D22 E13 E17
IN DE, ROSA M; GERACI, G; ROSSI, M
PA (BIOT-N) DEV BIOTECHNOLOGICAL PROCESSESS SNC
CYC 45
PI WO 9413136 A1 19940623 (199426)* EN 17p
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE
W: AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN
AU 9456297 A 19940704 (199437)
ADT WO 9413136 A1 WO 1993-EP3365 19931201; AU 9456297 A AU 1994-56297 19931201
FDT AU 9456297 A Based on WO 9413136
PRAI IT 1992-MI2776 19921204
AB WO 9413136 A UPAB: 19940817
Cryoprotective solns. comprise (a) polyethylene glycols (PEG) of mol.wt. not higher than 20 KD; (b) cross-linking agent(s) selected from polyols, mono- or oligosaccharides, polyethylene glycols of mol.wt. lower than 1 KD.

The crosslinking agent is selected from glycerol, ethylene glycol, ethylene glycol, maltitol, glucose, fructose, sucrose, maltodextrin, or PEG of mol.wt. lower than 1KD. The PEG is present at a concn. not higher than 25 wt/v % (esp. 10-20 wt/v %). The crosslinking agent is present at a concn. of not higher than 25 wt/v % (esp. 10-20 wt/v %). The solns. further comprise salts, **antibiotics**, proteins, sera and other components normally used for the growth and culture of biological materials.

USE/ADVANTAGE - The solns. are useful for **cryopreservation** of **organs** for **transplants**. The solns. are useful for **preservation** of prokaryotic or eukaryotic cells, embryos, **tissues** or organs and also for tissues obtd. by in vitro culture techniques. The liquid-solid phase transition occurs without volume increase and there is no formation of microcrystals during the freezing step, and thus avoids drawbacks of prior art methods.
Dwg.0/0

L25 ANSWER 18 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1994-107930 [13] WPIDS
DNC C1994-050296
TI Preserving bone tissues for use as **transplants** - comprises sepg. soft tissues, demineralising bone with aq. hydrochloric acid, and storing at 4 deg C in 20% soln. of **urea**.
DC D22
IN BATALOV, O A; DENISOV, V M; TYUKINA, A A
PA (NIZH-R) NIZHEGOROD TRAUMATOLOGY ORTHOPAEDICS
CYC 1

PI SU 1790942 A1 19930130 (199413)* 2p
ADT SU 1790942 A1 SU 1984-3814099 19841119
PRAI SU 1984-3814099 19841119
AB SU 1790942 A UPAB: 19940517
Use of 20% soln. of **urea** as preserving agent instead of 0.5% formaldehyde in preparing bone **tissues** for **storage** and subsequent use in **transplants**, increases the degree of preservation of osteo-inductive properties of the bone matrix.
USE/ADVANTAGE - In orthopaedic medicine. The osteoinductive properties of the bone matrix are retained.
Dwg.0/0

L25 ANSWER 19 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1993-185129 [23] WPIDS
DNC C1993-082055
TI Storage of mammalian ovaries esp. from cows - involves immersing in soln. esp. (buffered) saline then storing at 10-20 deg. C. to prevent cell division.
DC B04 C07 D22
PA (KYOD-N) KYODO SHIRYO CO LTD
CYC 1
PI JP 05112401 A 19930507 (199323)* 4p
ADT JP 05112401 A JP 1991-298339 19911017
PRAI JP 1991-298339 19911017
AB JP 05112401 A UPAB: 19931115
Storage of mammalian ovaries involves immersing them in an **organ storage** soln., partic. saline soln., modified urocolins soln. and phosphate buffered saline (PBS) soln., followed by storage at 10-20 deg. C.
Isolated ovaries are stored in an **organ storage** solns. (e.g. saline soln., modified urocolins soln. and PBS soln.) at 10-20 deg. C. The modified urocolins soln. is a soln. for the **storage** and **transplantation** of **organ**, partic. kidney, prepd. from an electrolyte soln. contg. no Mg2+ added with heparin, procaine and glucose, opt. added with **antibiotics**.
USE/ADVANTAGE - Stable storage of ovaries for in vitro fertilisation of domestic animals, partic. cows over 24 hrs. preventing cell division.
In an example, ovaries of cows were isolated and kept in a saline soln. at 17 deg. C in a jar for 24 hrs.. The cell division rate over five cells was maintained at a rate of 60% and showed blastocyte development rate of 30%.
Dwg.0/0

L25 ANSWER 20 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1992-416922 [51] WPIDS
DNC C1992-184916
TI Serum-free medical soln. esp. for storing cornea(s) - contain glycosaminoglycan, deturgescent agent, buffer, antioxidant and growth factor, for protecting eye from deterioration.
DC A96 B04 B05 P32
IN LINDSTROM, R L; SKELNIK, D; SKELNIK, D L
PA (LIND-I) LINDSTROM R L; (SKEL-I) SKELNIK D; (SKEL-I) SKELNIK D L; (SKEL-I) SKELNICK D
CYC 17
PI EP 516901 A1 19921209 (199251)* EN 28p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
AU 9179167 A 19930121 (199310)#
CA 2044552 A 19921214 (199310)
JP 05025001 A 19930202 (199310)# 19p
JP 06048901 A 19940222 (199412)# 23p

ADT EP 516901 A1 EP 1991-305125 19910606; AU 9179167 A AU 1991-79167 19910619; CA 2044552 A CA 1991-2044552 19910613; JP 05025001 A JP 1991-167243 19910708; JP 06048901 A JP 1991-196887 19910806
PRAI EP 1991-305125 19910606
AB EP 516901 A UPAB: 19931116
A serum-free medical soln. comprises (a) an aqs. nutrient and electrolyte soln. (b) glycosaminoglycan, (c) deturgescent agent, (d) buffer system, (e) energy source, (f) antioxidant and (g) growth factor.

Soln. suitable for preserving cornea which contains growth factor(s); serum-free soln. which contains growth factor(s) which maintain and enhance the **preservation** of eye **tissues** (e.g. human corneal tissues) at low temps. (e.g. 2-15 deg.C) with a physiological pH, comprising (a) an aqs. nutrient and electrolyte soln. selected from (1) Eagles minimal essential medium (MEM) (2) TC199 medium, (3) a combination of MEM and TC199, (b) 0.01-100 mg/ml of a glycosaminoglycan selected from chondroitin sulphate, dermatin sulphate, heparin sulphate, keratin sulphate and hyaluronic acid, (c) 0.01-100 mg/ml of a deturgescent agent selected from dextran, dextran sulphate, PVP, polyvinyl acetate, hydroxypropylmethyl cellulose and carboxypropylmethyl cellulose, (d) 0.1-100 mM of a buffer system selected from bicarbonate buffer and HEPES buffer, (e) 0.05-10mM of an energy source selected from glucose, pyruvate, fructose, and dextrose, (f) 0.001-10 mM of an antioxidant selected from ascorbic acid, z-mercaptoethanol, glutathione and alpha-tocopherol, (g) 0.01-500 mg/ml of a membrane stabilising component selected from vitamins A, vitamin B, retionoic acid, ethanolamine, phosphoethanolamine, selenium and transferrin, (h) 0.1 mg/ml-1 mg/ml of an **antibiotic** and/or antimycotic selected from gentamycin and fungizone, and (i) 0.001 mg/ml-1mg/ml of a growth factor selected from epidermal growth factor(EGF) insulin-like growth factor (IGF) I or II, acidic or basic fibroblast growth factor (FGF) transforming growth factor (TGF)-alpha or beta-platelet derived growth factor (PDGF) and insulin are also claimed.

USE/ADVANTAGE - Both human and animal eye tissues esp. corneas, are protected from deterioration and are actually enhanced during eye-bank low temp. storage in a serum-free growth factor-contg. preservation soln. After such storage, the potential of the corneal endothelial cells to mitose following **transplantation** is greatly enhanced.
Dwg.0/11

L25 ANSWER 21 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1992-414951 [50] WPIDS
CR 1984-318392 [51]; 1990-368152 [49]; 1996-159714 [16]
DNC C1992-184138
TI In-vitro storage and preservation of human corneal endothelial cells - comprises storage soln. contg. 2.5-100 per cent chondroitin sulphate.
DC B04 D22
IN HARRISON, S E; SOLL, D B
PA (SOLL-I) SOLL D B
CYC 1
PI US 5166048 A 19921124 (199250)* 8p
ADT US 5166048 A CIP of US 1981-239791 19810302, Cont of US 1984-677130 19841203, Cont of US 1989-349987 19890508, US 1991-749463 19910814
FDT US 5166048 A CIP of US 4486416
PRAI US 1984-677130 19841203; US 1981-239791 19810302; US 1989-349987 19890508; US 1991-749463 19910814
AB US 5166048 A UPAB: 19960428
A method for the in vitro storage and preservation of the viability of human corneal endothelial cells for later use comprises the steps of: (a) removing the cornea from the human eye globe; (b) storing the cornea in a soln. providing metal ions and cell nutrients, the soln. comprising a tissue culture medium, a buffer system for the soln., an

antibiotic, and ca. 2.5-20wt.% of chondroitin sulphate, so that the viability of the cells is maintained for greater than 4 days up to at least 2 weeks.

ADVANTAGE - Solns. for preserving cells and **tissues** in vitro have extended **storage** life when they contain chondroitin sulphate. The cells may be used at a later time for grafts or **transplants**.

0/0

Dwg.0/0

L25 ANSWER 22 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1992-150500 [18] WPIDS
DNC C1992-069617
TI An aq. compsn. for the **preservation** and **storage** of an **organ** - intended for **transplantation**, comprises an aq. soln. of physiologically inert hydroxyethyl starch of mean mol. wt. less than 100,000 daltons.
DC A11 A96 D22 E19
IN PFIRRMANN, R; PFIRRMANN, R W
PA (GEIS) GEISTLICH SOEHNE CHEM IND AG E; (GEIS) GEISTLICH SOEHNE AG E
CYC 16
PI WO 9205693 A 19920416 (199218)* EN 12p
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE
W: CA JP US
EP 551359 A1 19930721 (199329) EN 12p
R: DE FR GB IT
EP 551359 B1 19940810 (199431) EN 6p
R: DE FR GB IT
DE 69103427 E 19940915 (199436)
ADT WO 9205693 A WO 1991-EP1885 19910927; EP 551359 A1 EP 1991-917590 19910927, WO 1991-EP1885 19910927; EP 551359 B1 EP 1991-917590 19910927, WO 1991-EP1885 19910927; DE 69103427 E DE 1991-603427 19910927, EP 1991-917590 19910927, WO 1991-EP1885 19910927
FDT EP 551359 A1 Based on WO 9205693; EP 551359 B1 Based on WO 9205693; DE 69103427 E Based on EP 551359, Based on WO 9205693
PRAI GB 1990-21325 19901001
AB WO 9205693 A UPAB: 19931006
An aq. compsn. for the **preservation** and **storage** of an **organ** intended for **transplantation** comprises an aq. soln. of physiologically inert hydroxyethyl starch having a mean molecular wt. of less than 100,000 dalton. The mol. wt. of the starch is pref. 30,000-70,000 and the degree of substitution of the hydroxyethyl starch is 0.4 to 0.7. The concn. of the starch is 3-8 wt.%. The compsn. is free from penicillin or other **antibiotics**. The compsn. contains glutathione, raffinose, a lactobionate, adenosine triphosphate and/or allopurinol. The osmolity of the compsn. is 250-350 mosm/litre.

USE/ADVANTAGE - The compsn. comprises taurolidine or taurultam as an antibacterial agent and withstands sterilisation by autoclaving whereas penicillin does not. Because of the low mol.wt. of the starch the ''itching'' reaction which limits the use of currently used compsns. is avoided. (0/0)

0/0

L25 ANSWER 23 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1992-150188 [18] WPIDS
CR 1995-161033 [21]
DNC C1992-069464
TI Serum-free medical soln. for corneal preservation - maintains corneal de-turgescence, thickness and transparency.
DC A96 B04 D22 P32 P34

IN LINDSTROM, R L; SKELNIK, D; SKELNIK, D L
PA (LIND-I) LINDSTROM R L; (SKEL-I) SKELNIK D; (SKEL-I) SKELNIK D L
CYC 18
PI US 5104787 A 19920414 (199218)* 13p
EP 517972 A1 19921216 (199251)# EN 17p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
JP 05007619 A 19930119 (199308)# 16p
AU 9179168 A 19930121 (199310)#
CA 2044494 A 19921214 (199310)
EP 517972 B1 19951108 (199549)# EN 21p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DE 69114485 E 19951214 (199604)#
ES 2080254 T3 19960201 (199612)#
CA 2044494 C 20000516 (200038)# EN
ADT US 5104787 A US 1990-487919 19900305; EP 517972 A1 EP 1991-305291 19910612; JP 05007619 A JP 1991-152056 19910624; AU 9179168 A AU 1991-79168 19910619; CA 2044494 A CA 1991-2044494 19910613; EP 517972 B1 EP 1991-305291 19910612; DE 69114485 E DE 1991-614485 19910612, EP 1991-305291 19910612; ES 2080254 T3 EP 1991-305291 19910612; CA 2044494 C CA 1991-2044494 19910613
FDT DE 69114485 E Based on EP 517972; ES 2080254 T3 Based on EP 517972
PRAI US 1990-487919 19900305; EP 1991-305291 19910612; JP 1991-152056 19910624; AU 1991-79168 19910619; CA 1991-2044494 19910613; DE 1991-614485 19910612
AB US 5104787 A UPAB: 20000811
Serum free medical soln. (I) comprises (a) an aq. nutrient and electrolyte soln. comprising Eagle's minimal essential medium (MEM) and/or TC199 medium; (b) 0.01-100 mg/ml of a glycosaminoglycan, which is chondroitin sulphate, dermatan sulphate, dermatin sulphate, heparin sulphate, heparan sulphate, keratin sulphate, keratan sulphate and/or hyaluronic sulphate; (c) 0.01-100 mg/ml of a deturgescent agent, which is dextran, dextran sulphate, polyvinyl pyrrolidone, polyethylene glycol, polyvinyl acetate, hydroxypropylmethyl cellulose or carboxypropylmethyl cellulose; (d) 0.05-10 mM of an energy source, which is glucose, pyruvate, sucrose, fructose or dextrose; (e) 0.1-100 mM of a buffer system comprising a bicarbonate or HEPES buffer; (f) 0.001-10 mM of an antioxidant comprising ascorbic acid, 2-mercaptoethanol, glutathione or alpha-tocopherol; (g) 0.01-500 mg/ml of a membrane stabilising component, which is vitamin A, vitamin B, retinoic acid, ethanolamine, phosphoethanolamine, selenium or transferrin; (h) 0.1 microg-1 mg/ml of an **antibiotic** and/or antimycotic, which is amphotericin-B, gentamycin sulphate, **kanamycin** sulphate, neomycin sulphate nystatin, penicillin, tobramycin or streptomycin; (i) 0.001-10 mM ATP precursors comprising adenosine, inosine or adenine; and (j) 0.001-10 mM nutrient cell supplements comprising cholesterol, L-hydroxproline, d-biotin, calciferol, niacin, para-aminobenzoic acid, pyridoxine HCl, vitamin B12, Fe(NO3)3 or non-essential aminoacids.

USE/ADVANTAGE - (I) is useful for enhancing ocular **tissues** esp. corneal **tissues**, during **storage** prior to **transplantation**. (I) is effective in maintaining corneal deturgescence, thickness and transparency intra- and post-operatively, and thus increases the length of time that corneal tissues can maintain the attributes of fresh tissue. Wound healing is also potentiated. The serum-free soln. has advantages in its inability to transmit e.g. viral diseases, and the absence of substances eliciting immune response or endotoxins or growth factors

Dwg.0/4
Dwg.0/4

L25 ANSWER 24 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1991-337504 [46] WPIDS
DNC C1991-145871
TI **Preservation** of skin **tissue** samples - by placing in containers, immersing in zinc powder, precooled to cryogenic conditions and freezing at specified rate.
DC D22
IN GRISHCHENK, V I; ISAEV, Y U I; SANDONIRSK, B P
PA (AUCR-R) AS UKR CRIOBIOLOGY
CYC 1
PI SU 1613088 A 19901215 (199146)*
ADT SU 1613088 A SU 1988-4373534 19880208
PRAI SU 1988-4373534 19880208
AB SU 1613088 A UPAB: 19930928
Skin tissue samples are placed in sterile containers made of food grade aluminium foil, sealed and the containers are immersed in Zn powder, previously cooled to (-196) deg. C, which causes freezing of samples at cooling rate 5000 deg.C/min. Containers with frozen samples are stored in liq. nitrogen and can be thawed using water bath of temp. (+40) deg. C.
Tests show that the proposed method ensures min. stimulation of **peroxide**-oxidn. of lipids and max. resistance of skin tissue to oxidn., thus ensuring min. damage of cell membranes during cryoconservation and max. viability of **transplant** skin material.
USE/ADVANTAGE - In biology and medicine as a method of preservation of skin samples used for skin **transplants**. Improved quality of skin tissue is obtd. using simplified technology. Bul.46/15.12.90
0/0

L25 ANSWER 25 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1991-066864 [10] WPIDS
CR 1991-066863 [10]
DNC C1991-028256
TI New and known perfluorinated N-cycloalkyl cyclic amine derivs. - prepd. by electrolysis of N-cycloalkenyl cyclic amine in liq. hydrogen fluoride, useful as blood substitutes, etc..
DC B03 C02 D16 H07 H08
IN FACKLER, R; MADER, J; MEINERT, H; REUTER, P
PA (KALI) KALI-CHEMIE AG
CYC 15
PI EP 415264 A 19910306 (199110)* 10p
R: AT BE CH DE ES FR GB IT LI NL SE
DE 4019061 A 19910307 (199111)
JP 03169855 A 19910723 (199135)
US 5091064 A 19920225 (199211) 7p
DD 297458 A5 19920109 (199223)
US 5173512 A 19921222 (199302) 7p
EP 415264 B1 19940629 (199425) DE 17p
R: AT BE CH DE DK ES FR GB IT LI NL SE
DE 59006295 G 19940804 (199430)
ES 2055249 T3 19940816 (199434)
JP 2983593 B2 19991129 (200002) 7p
ADT EP 415264 A EP 1990-116140 19900823; DE 4019061 A DE 1990-4019061 19900615; JP 03169855 A JP 1990-225462 19900329; US 5091064 A US 1990-572550 19900827; DD 297458 A5 DD 1990-343686 19900828; US 5173512 A US 1991-806286 19911213; EP 415264 B1 EP 1990-116140 19900823; DE 59006295 G DE 1990-506295 19900823, EP 1990-116140 19900823; ES 2055249 T3 EP 1990-116140 19900823; JP 2983593 B2 JP 1990-225462 19900829
FDT DE 59006295 G Based on EP 415264; ES 2055249 T3 Based on EP 415264; JP 2983593 B2 Previous Publ. JP 03169855
PRAI DE 1989-3928692 19890830; DE 1989-3941515 19891215
AB EP 415264 A UPAB: 20000112

(A) Perfluoro-4-cyclohexylmorpholine of formula (Ia) and its mixts. with perfluoro-4-n-hexylmorpholine of formula (IIa) are new. Prodn. of perfluorinated N-cycloalkyl cyclic amines of formula (I) and perfluorinated N-alkyl cyclic amines of formula (II) is effected by (a) electrolysing a soln. of an N-cycloalkenyl cyclic amine of formula (III) in liq. HF; (b) isolating a crude prod. contg. (I), (II) and partially fluorinated by-products; (c) treating the crude prod. with an alkali(ne earth) metal base in the presence of H2O and opt. a lower aliphatic primary or sec. amine at a temp. sufficient to decompose partially fluorinated by-products; (d) isolating a mixt. of (I) and (II) from the reaction mixt.; (e) opt. separating (I) from (II); and (f) opt. separating (I) or (II) where X = (CF2)3 from the isomeric cpds. where X = CF(CF3)CF2: m = 3 or 4; X = CF2OCF2, (CF2)3 or CF(CF3)CF2; A = O or CH2.

USE - (I) and (II) are useful for prodn. of O2-transporting aq. emulsions useful as blood substitutes, as fluids for **organ** perfusion and **storage** in **transplant** surgery, as diagnostic agents (e.g. for ultrasonography and 19F NMR tomography) and as components of nutrient media for culturing animal and plant cells or for interferon prodn. (I) and (II) are also useful in technical applications, e.g. as coolants, lubricants, hydraulic fluids, insulating oils, vapour-phase soldering media and gas-diffusion media (e.g. in gas sepn. by dialysis). @(10pp Dwg.No.0/0)@

0/0

L25 ANSWER 26 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1990-356286 [48] WPIDS
DNC C1990-154764
TI Maximising re vitalisation of cells esp. in **transplantable tissue** - by incubating in nutrient medium before **cryopreservation**, improving viability and functional capacity.
DC D16 D22
IN BROCKBANK, K G M; CARPENTER, J F
PA (CRYO-N) CRYOLIFE INC
CYC 17
PI EP 399647 A 19901128 (199048)* 15p
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
CA 2012757 A 19901026 (199103)
JP 03068501 A 19910325 (199118)
US 5171660 A 19921215 (199301) 8p
US 5424207 A 19950613 (199529) 10p
EP 399647 B1 19951220 (199604) EN 19p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DE 69024260 E 19960201 (199610)
ES 2081927 T3 19960316 (199618)
JP 2859925 B2 19990224 (199913) 9p
ADT EP 399647 A EP 1990-304038 19900412; JP 03068501 A JP 1990-106660 19900424; US 5171660 A US 1989-344013 19890426; US 5424207 A Div ex US 1989-344013 19890426, US 1992-927768 19920810; EP 399647 B1 EP 1990-304038 19900412; DE 69024260 E DE 1990-624260 19900412, EP 1990-304038 19900412; ES 2081927 T3 EP 1990-304038 19900412; JP 2859925 B2 JP 1990-106660 19900424
FDT US 5424207 A Div ex US 5171660; DE 69024260 E Based on EP 399647; ES 2081927 T3 Based on EP 399647; JP 2859925 B2 Previous Publ. JP 03068501
PRAI US 1989-344013 19890426; US 1992-927768 19920810
AB EP 399647 A UPAB: 19930928
Revitalisation of cells is optimised by placing them in a nutrient medium and incubating, at appropriate temp. and for suitable times.

Also new are optimally revitalised **transplantable** tissue contg. cells which have been treated this way before cryopreservation.

The cells (**transplantable** tissue) is incubated at 27-42

deg.C for 5 min-24 hr. (best about 6 hr. at 37 deg.C).
USE/ADVANTAGE - This treatment improves **transplant** cell viability and functional capacity after thawing **transplantation**, and can be combined with other treatment such as **antibiotic** sterilisation. In particular, it improves recovery from transient, ischaemia-induced lesion which occur inevitably during processing of human **tissues** for **preservation**, so that **transplant** success rate is improved.

L25 ANSWER 27 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1989-146244 [20] WPIDS
DNC C1989-064665
TI Solns. for washing and storing organs - contg. organo-germanium oxide.
DC B05 D22 E12
IN KAKIMOTO, N; KUMANO, K; NAKAMURA, K
PA (ASGE) ASAI GERMANIUM RES INST CO LTD; (ASGE) ASAI GERMANIUM RES INST; (ASGE) ASAI GERMANIUM KENKYUSHO
CYC 9
PI DE 3836650 A 19890511 (198920)* 6p
FR 2622396 A 19890505 (198925)
JP 01117801 A 19890510 (198925)
GB 2211394 A 19890705 (198927)
US 4956272 A 19900911 (199039)
GB 2211394 B 19911023 (199143)
JP 05000361 B 19930105 (199304) 4p
CA 1327019 C 19940215 (199412)
DE 3836650 C2 19940915 (199435) 5p
ADT DE 3836650 A DE 1988-3836650 19881027; JP 01117801 A JP 1987-273745 19871029; GB 2211394 A GB 1988-25169 19881027; US 4956272 A US 1988-261628 19881024; JP 05000361 B JP 1987-273745 19871029; CA 1327019 C CA 1988-580728 19881020; DE 3836650 C2 DE 1988-3836650 19881027
FDT JP 05000361 B Based on JP 01117801
PRAI JP 1987-273745 19871029
AB DE 3836650 A UPAB: 19931122
Solns. for washing and storing removed organs contain an organogermanium oxide of formula.
(X-CO-CHR3-CR1R2-Ge)2O3 (I)
R1-R3=H, lower alkyl or opt. substd. phenyl, X=OH, alkoxy, NH2 or OY; Y=a metal (e.g. Na or K) or a cpd. contg. a basic gp. (e.g. lysozyme or a basic amino acid).
Pref. (I) is 2-carboxyethyl-germanium oxide (Ia) and is added to a conventional Collins or Euro-Collins soln. in an amt. of 0.5-1%.
USE/ADVANTAGE - The solns. are esp. useful for washing and storing kidneys intended for **transplantation**. Addn. of (I) to conventional solns. improves the survival rate of **transplant** recipients and lowers their serum creatinine levels.
Dwg.0/0

L25 ANSWER 28 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1989-068707 [09] WPIDS
DNC C1989-030569
TI Appts. for cryo-preservation of blood vessels - comprises pair of stylets on rack inserted into ends of vessel to prevent contraction and allow liq. perfusion.
DC D22 P31 P32 P34
IN BANK, H L; BROCKBANK, K G M; HEACOX, A E; MCCAA, C; MCNALLY, R T; HEACOX, A; MCCAA, C M
PA (CRYO-N) CRYOLIFE INC; (UYSC-N) UNIV SOUTH CAROLINA (MUSC); (BANK-I) BANK H L; (UYSC-N) UNIV SOUTH CAROLINA; (UYSC-N) MED UNIV OF SOUTH CAROLI
CYC 20

PI WO 8901286 A 19890223 (198909)* EN 44p
RW: AT BE CH DE FR GB IT LI LU NL SE
W: AT AU DK FI JP NO
AU 8824210 A 19890309 (198925)
ES 2010317 A 19891101 (199004)
ZA 8805941 A 19900425 (199021)
EP 382745 A 19900822 (199034)
R: AT BE CH DE FR GB IT LI LU NL SE
JP 03501252 W 19910322 (199118)
US 5122110 A 19920616 (199227) 12p
US 5145769 A 19920908 (199239) 11p
US 5149621 A 19920922 (199241) 11p
US 5158867 A 19921027 (199246) 11p
EP 382745 B1 19941026 (199441) EN 23p
R: AT BE CH DE FR GB IT LI LU NL SE
DE 3851959 G 19941201 (199502)
CA 1333694 C 19941227 (199507)
JP 2686301 B2 19971208 (199803) 12p

ADT WO 8901286 A WO 1988-US2832 19880818; ES 2010317 A ES 1988-2598 19880819; ZA 8805941 A ZA 1988-5941 19880811; EP 382745 A EP 1988-908034 19880818; JP 03501252 W JP 1988-507432 19880218; US 5122110 A Div ex US 1987-88092 19870821, US 1990-436357 19900123; US 5145769 A US 1987-88092 19870821; US 5149621 A Div ex US 1987-88092 19870821, US 1990-436364 19900123; US 5158867 A Div ex US 1987-88092 19870821, US 1990-436365 19900123; EP 382745 B1 EP 1988-908034 19880818, WO 1988-US2832 19880818; DE 3851959 G DE 1988-3851959 19880818, EP 1988-908034 19880818, WO 1988-US2832 19880818; CA 1333694 C CA 1988-574631 19880812; JP 2686301 B2 JP 1988-507432 19880818, WO 1988-US2832 19880818

FDT EP 382745 B1 Based on WO 8901286; DE 3851959 G Based on EP 382745, Based on WO 8901286; JP 2686301 B2 Previous Publ. JP 03501252, Based on WO 8901286

PRAI US 1987-88092 19870821

AB WO 8901286 A UPAB: 19950404
A device (stent) for cryopreservation of blood vessels comprises two elongated stylets, each with an end which can be inserted into a blood vessel to provide fluid-tight closure. The stylets face each other and are amounted adjustably on a support, with the vessel distended between them to prevent its contraction. The stent supports the vessel at all stages of procurement and cryopreservation.

Also new is a blood vessel cryopreservation process which comprises (1) placing the dissected vessel in **antibiotic** contg. medium; (2) treating with a cryopreservative; (3) freezing and (4) storing at below -100 deg.C.

USE/ADVANTAGES - Blood vessels can be stored for a long time for subsequent use as vascular reconstruction grafts. The specified freezing (and thawing) procedure allows storage at liq. N2 temp. without significant damage caused by ice crystals or osmotic shock, particularly to the endothelium.

Dwg.0/4

Dwg.0/4

L25 ANSWER 29 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1987-125510 [18] WPIDS
DNC C1987-052108
TI Preserving organs for **transplantation** - in Collin's soln. contg. plasminogen activator e.g. urokinase.
DC B05 D16 D22
PA (GREC) GREEN CROSS CORP
CYC 1
PI JP 62067001 A 19870326 (198718)* 5p

JP 06088881 B2 19941109 (199443) 3p
ADT JP 62067001 A JP 1985-206079 19850917; JP 06088881 B2 JP 1985-206079 19850917
FDT JP 06088881 B2 Based on JP 62067001
PRAI JP 1985-206079 19850917
AB JP 62067001 A UPAB: 19930922
Collin's modified soln. is used for the **preservation** of **transplant organs**. The basic compsn. of the soln. is 22-28 g/l glucose, 1.8-2.3 g/l KH2PO4, 7.0-11.2 g/l K2HPO4, 0.97-1.27 g/l KCl, 0.67-0.97 g/l NaHCO3, and 0.6-7.5 g/l MgSO4 . 7H2O.

Examples of the plasminogen activator are urokinase and its precursors, tissue plasminogen activators and their precursors, etc. These plasminogen activators may be those which are derived from **urea**, or obtd. by cell-cultivation, or produced by genetic engineering. They should be highly purified for medical use. The loading amt. of plasminogen activators in the Collin's soln. is 1000-10000 IU/ml.

USE/ADVANTAGE - Method makes it possible to preserve **transplant** organs, partic. kidneys, at 0-10 deg.C for 72-120 hrs.
0/0

L25 ANSWER 30 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1987-117799 [17] WPIDS
DNN N1987-088272 DNC C1987-048973
TI Fat emulsion for intravenous administration - contg. cpd. to prevent creaming when emulsion is mixed with human serum or plasma e.g. carboxylic or sulphonic acid.
DC B05 D16 D22 S03
IN AJAXON, B; WRETLIND, A
PA (ITNU-N) INT NUTRITIONAL RES
CYC 8
PI EP 220152 A 19870429 (198717)* EN 16p
R: DE ES FR GB IT SE
SE 8505047 A 19870426 (198724)
DK 8605103 A 19870426 (198748)
US 4970209 A 19901113 (199048)
ADT EP 220152 A EP 1986-850372 19861023; US 4970209 A US 1989-334800 19890403
PRAI SE 1985-5047 19851025
AB EP 220152 A UPAB: 19930922
A fat emulsion of the oil-in-water type contains at least one cpd. which prevents creaming for at least 3 hrs. when the emulsion is mixed with human serum or plasma to a concn. of 1-10 vol%, the human serum or plasma used being such that it creates creaming within 15 mins when mixed with 1-10 vol.% of an emulsion of the compsn 5mg diazepan, 150mg soybean oil, 50 mg acetylated monoglycerides, 12 mg phospholipids from egg yolk, 22.5 mg glycerol and water to 1ml.

The cpd is pref a carboxylic or sulphonic acid opt. contg 1 or more double bonds and having up to 20C or a salt thereof or **urea**.

ADVANTAGE - The cpd. improves resistance to creaming. The improvement of the stability is also seen in fluorocarbon emulsions used as oxygen carrying blood substitutes, in **tissue** culture or for **storage** of **organ transplants**.
0/2

L25 ANSWER 31 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1987-081223 [12] WPIDS
DNC C1987-033686
TI Protecting living tissue, esp. **transplanting** esp. against anoxia - by perfusion with soln. contg. acetoacetic acid or its salt or ester.
DC D22 E12 E17
IN GOMEZ, O; GUIDOUX, R

PA (NEST) SOC PROD NESTLE SA
CYC 12
PI EP 215138 A 19870325 (198712)* FR 10p
R: AT BE CH DE FR GB IT LI NL SE
CA 1270199 A 19900612 (199031)
US 4970143 A 19901113 (199048)
EP 215138 B 19910116 (199103)
R: CH DE FR LI SE
DE 3581407 G 19910221 (199109)
ADT EP 215138 A EP 1985-111290 19850906; US 4970143 A US 1986-896620 19860814
PRAI EP 1985-111290 19850906
AB EP 215138 A UPAB: 19930922
Acetoacetic acid (I), or its physiologically acceptable salts or esters, is used to produce a compsn. for preserving living tissues under conditions where oxygenation by blood is absent or insufficient. Pref. Na acetoacetate (Ia) is used, pref. together with pyruvic acid (or a salt or ester) and glucose, esp. in the form of an isotonic or slightly **hypertonic** aq. soln..
USE/ADVANTAGE - The (I)-contg. perfusion fluid is esp. used to protect hearts against anoxia and ischaemia during **transplant** operations (but can also be applied to other organs). (I) protects against functional changes (the effect is related to anaerobic energy prodn.). . 0/2

L25 ANSWER 32 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1977-42697Y [24] WPIDS
TI Medium for **preservation** of bone **tissue** - us-d in surgical **transplants** comprising bone glue, boric acid and water.
DC D22 E36
PA (SHKO-I) SHKOLNIKOV L G
CYC 1
PI SU 531525 A 19761103 (197724)*
PRAI SU 1974-2052198 19740802
AB SU 531525 A UPAB: 19930901
The medium comprises (in wt. %): 58-72.5 bone glue, 3-3.6 boric acid and the balance water. The medium preserves the physiological activity of the tissue for extended periods, e.g. 1.5-2 yrs. The bone tissue is preserved in the medium in a solidified briquet form.
The medium is prepd. by breaking a slab of hardened bone glue into 1-2 cm. pieces and swelling the pieces in a saline soln. at room temp. for 12-18 hrs. The soln. is then heated for up to 3 hrs. to form a soln. Boric acid is added to produce the conserving medium having a 60-70% bone glue concn. The bone tissue is then enveloped by standard means in a solidified briquet of the medium and stored. It may be recovered under antiseptic and **antibiotic** conditions and the glue recycled.

L25 ANSWER 33 OF 33 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1966-17342F [00] WPIDS
TI Preservative.
DC B00
PA (EGER) KUHN G
CYC 1
PI DD 39728 A (196800)*
PRAI DD 1964-102829 19640211
AB DD 39728 A UPAB: 19930831
Process for **preservation** of biological preparations e.g. **tissue,** bone.
For the **preservation** of biological material for **transplantation** and grafting.

The biological sample, eg. tissue, bone, is sterilised by impregnation with **antibiotic**, dried under sterile conditions and then encased in a polyester resin or other synthetic plastic material. The plastic encasing film may be further hardened by suitable treatment. The method is claimed to be preferable to methods of preservation involving freezing or the use of H_2O_2 or ethylene oxide.